Natural and *Political*

OBSERVATIONS

Mentioned in a following INDEX,

and made upon the

Bills of Mortality.

By *JOHN GRAUNT*,

Citizen of

LONDON.

With reference to the *Government*, *Religion*, *Trade*, *Growth*, *Ayre*, *Diſeaſes*, and the ſeveral Changes of the ſaid CITY.

——— *Non, me ut miretur Turba, laboro,*
Contentus paucis Lectoribus ———

LONDON,

Printed by *Tho: Roycroft*, for *John Martin*, *James Allestry*, and *Tho: Dicas*, at the Sign of the *Bell* in St. *Paul*'s Church-yard, MDCLXII.

1662

TO THE
RIGHT HONOURABLE
JOHN Lord *ROBERTS*, Baron of *Truro*, Lord *Privie-Seal*, and one of His Majeſtie's moſt Honourable *Privie Council.*

My Lord,

AS the favours I have received from your Lordſhip oblige me to preſent you with ſome token of my *gratitude:* ſo the eſpecial Honour I have for your Lordſhip hath made me *ſollicitous* in the choice of the *Preſent.* For, if I could have given your Lordſhip any choice *Excerptions* out of the *Greek*, or *Latine* Learning, I ſhould (according to our *Engliſh Proverb*) thereby but carry *Coals* to *Newcaſtle*, and but give your Lorſhip *Puddle-water*, who, by your own eminent *Knowledge* in thoſe learned *Languages*, can drink out of the very *Fountains* your ſelf.

Moreover, to preſent your Lordſhip with tedious *Narrations*, were but to ſpeak my own *Ignorance* of the *Value*, which his Majeſty, and the Publick have of your Lordſhip's Time. And in brief, to offer any thing like what is already in other Books, were but to derogate from your Lordſhip's learning, which the World knows to be univerſal, and unacquainted with few uſefull things contained in any of them.

Now having (I know not by what accident) engaged my thoughts upon the *Bills of Mortality*, and ſo far ſucceeded therein, as to have reduced ſeveral great confuſed *Volumes* into a few perſpicuous *Tables*, and abridged

ſuch *Obſervations* as naturally flowed from them, into a few ſuccinct *Paragraphs*, without any long Series of *multiloquious Deductions*, I have preſumed to ſacrifice theſe my ſmall, but firſt publiſh'd, *Labours* unto your Lordſhip, as unto whoſe benigne acceptance of ſome other of my *Papers*, even the Birth of theſe is due; hoping (if I may without vanity ſay it) they may be of as much uſe to Perſons in your Lordſhip's place, as they are of little or none to me, which is no more then the faireſt *Diamonds* are to the *Journey-man Jeweller* that works them, or the poor *Labourer* that firſt dig'd them from the Earth. For with all humble ſubmiſsion to your Lordſhip, I conceive, That it doth not ill-become a *Peer of the Parliament*, or *Member of his Majeſtie's Council*, to conſider how few ſtarve of the many that beg: That the irreligious *Propoſals* of ſome, to multiply People by *Polygamy*, is withall irrational, and fruitleſs: That the troubleſome ſecluſions in the *Plague-time* is not a remedy to be purchaſed at vaſt inconveniencies: That the greateſt *Plagues* of the City are equally, and quickly repaired from the Country: That the waſting of *Males* by Wars, and Colonies do not prejudice the due proportion between them and *Females*: That the Opinions of *Plagues* accompanying the Entrance of *Kings* is falſe, and ſeditious: That *London*, the *Metropolis* of *England*, is perhaps a Head too big for the Body, and poſsibly too ſtrong: That this Head grows three times as faſt as the Body unto which it belongs, that is, It doubles its People in a third part of the time: That our *Pariſhes* are now grown madly diſproportionable: That our *Temples* are not ſutable to our *Religion*: That the *Trade*, and very *City of London* removes *Weſtward*: That the walled City is but a one fifth of the whole Pyle:

That

That the old Streets are unfit for the preſent frequencie of *Coaches*: That the paſſage of *Ludgate* is a throat too ſtraight for the Body: That the fighting men about *London*, are able to make three as great Armies as can be of uſe in this *Iſland*: That the number of Heads is ſuch, as hath certainly much deceived ſome of our *Senatours* in their appointments of *Polemoney*, &c. Now, although your Lordſhip's moſt excellent Diſcourſes have well informed me, That your Lordſhip is no ſtranger to all theſe *Poſitions*; yet becauſe I knew not that your Lordſhip had ever deduced them from the *Bills of Mortality*; I hoped it might not be ungratefull to your Lordſhip, to ſee unto how much profit that one Talent might be improved, beſides the many curioſities concerning the waxing, and waning of Diſeaſes, the relation between *Healthfull*, and *fruitfull Seaſons*, the difference between the City and Country *Air*, &c. All which, being new, to the beſt of my knowledge, and the whole Pamphlet, not two hours reading, I did make bold to trouble your Lordſhip with a peruſal of it, and by this humble Dedication of it, let your Lordſhip and the world ſee the Wiſdom of our City, in appointing, and keeping theſe Accompts, and with how much affection and ſucceſs I am

My Lord,

Your Lordſhip's moſt obedient, and moſt faithfull Servant,

Birchen-Lane,
25 *January* 166½.

JOHN GRAUNT.

To the Honourable,

Sir *ROBERT MORAY*, Knight,

One of His Majeſtie's Privie-Council for His Kingdom of *Scotland*, and *Preſident* of the Royal Society of *Philoſophers*, meeting at *Greſham-College*, and to the reſt of that Honourable Society.

THe *Obſervations, which I happened to make (for I deſigned them not) upon the* Bills of Mortality, *have fallen out to be both* Political, *and* Natural, *ſome concerning* Trade, *and* Government, *others concerning the* Air, Countries, Seaſons, Fruitfulneſs, Health, Diſeaſes, Longevity, *and the proportions between the* Sex, *and* Ages of *Mankinde. All which (becauſe* S^r. Francis Bacon *reckons his Diſcourſes of* Life *and* Death *to be* Natural Hiſtory; *and becauſe I underſtand your ſelves are alſo appointing means, how to meaſure the Degrees of Heat, Wetneß, and Windineß in the ſeveral Parts of His Majeſtie's Dominions) I am humbly bold to think* Natural Hiſtory *alſo, and conſequently, that I am obliged to caſt in this ſmall* Mite *into your great* Treaſury *of that kinde.*

His Majeſty being not onely by antient Right ſupremely concerned in matters of Government, *and* Trade, *but alſo by happy accident* Prince of Philoſophers, *and of* Phyſico-Mathematical *Learning, not called ſo by Flatterers, and Paraſites, but really ſo, as well by his own perſonal Abilities,*

ties, as affection concerning thoſe matters, upon which Accompt I ſhould have humbly dedicated both ſorts of my Obſervations *unto His moſt Sacred Majeſty; but to be ſhort, I knew neither my Work, nor my Perſon fit to bear His Name, nor to deſerve His Patronage. Nevertheleſs, as I have preſumed to preſent this* Pamphlet, *ſo far as it relates to* Government, *and* Trade, *to one of His Majeſtie's Peers, and eminent Miniſters of State: ſo I do deſire your leave, to preſent the ſame unto You alſo, as it relates to* Natural Hiſtory, *and as it depends upon the* Mathematiques *of my Shop-Arithmetique. For You are not onely his Majeſties Privie Councel for* Philoſophie, *but alſo His Great Councel. You are the three Eſtates,* viz. *the* Mathematical, Mechanical, *and* Phyſical. *You are his Parliament of* Nature, *and it is no leſs diſparagement to the meaneſt of your number, to ſay there may be Commoners as well as Peers in* Philoſophie *among ſt you. For my own part I count it happineſs enough to my ſelf, that there is ſuch a Councel of* Nature, *as your* Society *is, in being; and I do with as much earneſtneſs enquire after your* Expeditions *againſt the Impediments of* Science, *as to know what* Armies, *and* Navies *the ſeveral* Princes *of the World are ſetting forth. I concern my ſelf as much to know who are Curatours of this or the other Experiments, as to know who are* Mareſchals *of* France, *or* Chancellour *of* Sweden. *I am as well pleaſed to hear you are ſatisfied in a luciferous Experiment, as that a breach hath been made in the Enemy's works: and your ingenious arguings immediately from ſenſe, and fact, are as pleaſant to me as the noiſe of victorious Guns, and Trumpets.*

Moreover, as I contend for the Decent Rights, and Ceremonies of the Church, *ſo I alſo contend againſt the envious* Schiſmaticks *of your* Society (*who think you do nothing,*

unleſs

unleſs you preſently tranſmute Mettals, make Butter and Cheeſe without Milk; and (as their own Ballad *hath it, make Leather without Hides) by aſſerting the uſefulneſs of even all your preparatory, and luciferous experiments being not the Ceremonies, but the ſubſtance, and principles of uſefull Arts. For, I finde in* Trade *the want of an univerſal meaſure, and have heard Muſicians wrangle about the juſt, and uniform keeping of time in their Conſorts, and therefore cannot with patience hear, that your Labours about* Vibrations, *eminently conducing to both, ſhould be ſlighted, nor your* Pendula, *called* Swing-ſwangs *with ſcorn. Nor can I better endure that your Exercitations about* Air *ſhould be termed fit employment onely for* Airie Fancies, *and not adequate Tasks for the moſt ſolid, and piercing heads: This is my Opinion concerning you, and although I am none of your number, nor have the leaſt ambition to be ſo, otherwiſe then to become able for your ſervice, and worthy of your Truſt: yet I am coveteous to have the right of being repreſented by you: To which end I deſire, that this little* Exhibition *of mine, may be looked upon as a* Free-holder's *Vote for the chooſing of* Knights *and* Burgeſſes *to ſit in the Parliament of* Nature, *meaning thereby, that as the Parliament owns a* Free-holder, *though he hath but fourty ſhillings a year to be one of them; ſo in the ſame manner and degree, I alſo deſire to be owned as one of you, and that no longer, then I continue a faithfull Friend, and Servant of your Deſigns and Perſons,*

J. G.

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THE

THE PREFACE.

HAving been born, and bred in the City of *London*, and having always obſerved, that moſt of them who conſtantly took in the weekly Bills of *Mortality*, made little other uſe of them, then to look at the foot, how the *Burials* increaſed, or decreaſed; And, among the *Caſualties*, what had happened rare, and extraordinary in the week currant: ſo as they might take the ſame as a *Text* to talk upon, in the next Company; and withall, in the *Plague-time*, how the *Sickneſs* increaſed, or decreaſed, that ſo the *Rich* might judge of the neceſsity of their removall, and *Trades-men* might conjecture what doings they were like to have in their reſpective dealings:

2. Now, I thought that the Wiſdom of our City had certainly deſigned the laudable practice of takeing, and diſtributing theſe Accompts, for other, and greater uſes then thoſe above-mentioned, or at leaſt, that ſome other uſes might be made of them: And thereupon I caſting mine Eye upon ſo many of the

General *Bills*, as next came to hand, I found encouragement from them, to look out all the *Bills* I could, and (to be ſhort) to furniſh my ſelf with as much matter of that kind, even as the Hall of the *Pariſh-Clerks* could afford me; the which, when I had reduced into Tables (the Copies whereof are here inſerted) ſo as to have a view of the whole together, in order to the more ready comparing of one *Year*, *Seaſon*, *Pariſh*, or other *Diviſion* of the City, with another, in reſpect of all the *Burials*, and *Chriſtnings*, and of all the *Diſeaſes*, and *Caſualties* happening in each of them reſpectively; I did then begin, not onely to examine the Conceits, Opinions, and Conjectures, which upon view of a few ſcattered *Bills* I had taken up; but did alſo admit new ones, as I found reaſon, and occaſion from my *Tables*.

3. Moreover, finding ſome *Truths*, and not commonly-believed Opinions, to ariſe from my Meditations upon theſe neglected *Papers*, I proceeded further, to conſider what benefit the knowledge of the ſame would bring to the World; that I might not engage my ſelf in idle, and uſeleſs Speculations, but like thoſe Noble *Virtuoſi* of *Greſham-Colledge* (who reduce their ſubtile Diſquiſitions upon Nature into downright Mechanical uſes) preſent the World with ſome real fruit from thoſe ayrie Bloſſoms.

4. How far I have ſucceeded in the Premiſſes, I now offer to the World's cenſure. Who, I hope, will not expect from me, not profeſſing Letters, things demonſtrated with the ſame certainty, wherewith Learned men determine in their *Scholes*; but will take it well, that I ſhould offer at a new thing, and could forbear

forbear presuming to meddle where any of the Learned Pens have ever touched before, and that I have taken the pains, and been at the charge, of setting out those *Tables*, whereby all men may both correct my *Positions*, and raise others of their own: For herein I have, like a silly Schole-boy, coming to say my Lesson to the World (that Peevish, and Tetchie Master) brought a bundle of Rods wherewith to be whipt, for every mistake I have committed.

CHAP. I.

Of the Bills of Mortality, their beginning, and progreſs.

THe firſt of the continued weekly *Bills* of *Mortality* extant at the Pariſh-Clerks *Hall*, begins the 29. of *December*, 1603, being the firſt year of King *James* his Reign; ſince when, a weekly Accompt hath been kept there of *Burials* and *Chriſtnings*. It is true, There were *Bills* before, *viz.* for the years 1592, -93, -94. but ſo interrupted ſince, that I could not depend upon the ſufficiencie of them, rather relying upon thoſe Accompts which have been kept ſince, in order, as to all the uſes I ſhall make of them.

2. I believe, that the riſe of keeping theſe Accompts, was taken from the *Plague*: for the ſaid *Bills* (for ought appears) firſt began in the ſaid year 1592. being a time of great *Mortality*; And after ſome diſuſe, were reſumed again in the year 1603, after the great *Plague* then happening likewiſe.

3. Theſe *Bills* were Printed and publiſhed, not onely every week on *Thurſdays*, but alſo a general Accompt of the whole Year was given in, upon the *Thurſday* before *Chriſtmas Day*: which ſaid general Accompts have been preſented in the ſeveral manners following, *viz.* from the Year 1603, to the Year 1624, *incluſivè*, according to the Pattern here inſerted.

The

1623. 1624.

The generall *Bill* for the whole Year, of all the *Burials* and *Chriſtnings*, as well within the City of *London*, and the Liberties thereof, as in the Nine out-Pariſhes adjoyning to the City, with the *Peſt-houſe* belonging to the ſame: From *Thurſday* the 18. of *December*. 1623. to *Thurſday* the 16. of *December*, 1624. According to the Report made to the King's moſt Excellent Majeſty, by the Company of the Pariſh-Clerks of *London*.

Buried this Year in the fourſcore and ſeventeen Pariſhes of *London* within the walls.	3386.
Whereof, of the Plague,	1.
Buried this Year in the ſixteen Pariſhes of *London*, and the *Peſt-houſe*, being within the Liberties, and without the walls,	5924.
Whereof, of the Plague.	5.
The whole ſumm of all the Burials in *London*, and the Liberties thereof, is this Year,	9310.
Whereof, of the Plague,	6.
Buried of the Plague without the Liberties, in *Middleſex*, and *Surrey* this whole Year,	0.
Chriſtned in *London*, and the Liberties thereof, this Year,	6368.
Buried this Year in the Nine out-Pariſhes, adjoyning to *London*, and out of the Freedom,	1900.
Whereof, of the Plague.	5.
The Total of all the Burials in the places aforeſaid, is	12210.
Whereof, of the Plague.	11.
Chriſtned in all the aforeſaid places this Year	8299.
Pariſhes clear of the Plague,	116.
Pariſhes that have been Infected this Year.	6.

4 In the Year 1625, every Pariſh was particularized, as in this following *Bill*: where note, That this next year of Plague cauſed the Augmentation, and Correction of the *Bills*; as the former year of Plague, did the very being of them.

1624. 1625.

A general, or great Bill for this Year, of the whole number of Burials, which have been buried of all Diſeaſes, and alſo of the *Plague* in every Pariſh within the City of *London*, and the Liberties thereof; as alſo in the nine out-Pariſhes adjoyning to the ſaid City; with the Peſt-houſe belonging to the ſame. From *Thurſday* the 16. day of *December*, 1624. to *Thurſday* the 15 day of *December*, 1625. According to the Report, made to the king's moſt Excellent Majeſty, by the Company of Pariſh-Clerks of *London*.

LONDON,	*Bur.*	Plag.
Albanes in Woodſtreet	188	78
Alhallows Barking	397	263
Alhallows Breadſtreet	34	14
Alhallows the Great	442	302
Alhallows Hony-lane	18	8
Alhallows the leſs	259	205
Alhal in Lumberdſtreet	86	44
Alhallows Stainings	183	138
Alhallows the Wall	301	155
Alphage Cripple-gate	240	190
Andrew-Hubbard	126	101
Andrews Underſhaft	219	149
Andrews by Wardrobe	373	191
Annes at Aldersgate	196	128
Annes Black Friers	336	215
Antholins Pariſh	62	31
Auſtins Pariſh	72	40
Barthol. at the Exchange	52	24
Bennets Fink	108	57
Bennets Grace-Church	48	14
Bennets at Pauls Wharf	226	131
Bennets Sherehog	24	8
Botolps Billings-gate	99	66
Chriſt's Church Pariſh	611	371
Chriſtopher's Pariſh	48	28
Clements by Eaſtcheap	87	72
Dyonis Black-Church	99	59
Dunſtans in the Eaſt	335	225
Edmunds Lumberdſtreet	78	49
Ethelborow in Biſhopſg.	205	101
St. Faiths	89	45
St. Foſters in Foſter-lane	149	102

LONDON.	*Bur.*	*Plag.*
Gabriel Fen-church	71	54
George Botolphs-lane	30	19
Gregories by Pauls	196	196
Hellens in Biſhopsgateſt.	136	71
James by Garlickhithe	180	109
John Baptiſt	122	79
John Evangeliſt	7	0
John Zacharies	143	97
James Duks place	310	254
Katherine Coleman	163	175
Katherine Cree-church	886	373
Lawrence in the Jewrie	91	55
Lawrence Pountney	206	127
Leonards Eaſtcheap	55	26
Leonards Foſterlane	292	209
Magnus Pariſh by Bridge	137	85
Margarets Lothbury	114	64
Margarets Moſes	37	25
Margarets new Fiſhſtreet	123	82
Margarets Pattons	77	50
Mary Ab-church	98	58
Mary Aldermanbury	126	79
Mary Aldermary	91	54
Mary le Bow	35	19
Mary Bothaw	22	14
Mary Colechurch	26	11
Mary at the Hill	152	84
Mary Mounthaw	76	58
Mary Sommerſet	270	192
Mary Stainings	70	44
Mary Woolchurch	58	25
Mary Woolnoth	81	50

Martins

LONDON.	Bur.	Pla.
Martins Ironmonger-lane	25	18
Martins at Ludgate	254	164
Martins Orgars	88	47
Martins Outwich	60	30
Martins in the Vintry	339	208
Matthew Fridayſtreet	24	11
Maudlins in Milkſtreet	401	23
Maudlins Oldfiſh-ſtreet	225	142
Michael Baſſiſhaw	199	139
Michael Corn-Hill	159	79
Michael Crooked-lane	144	91
Michael Queenhithe	215	157
Michael in the Quern	53	30
Michael in the Ryal	111	61
Michael in Woodſtreet	189	68
Mildreds Breadſtreet	60	44
Mildreds Poultrey	94	45
Nicholas Acons	33	13
Nicholas Cole-Abby	87	67
Nicholas Olaves	70	43
Olaves in Hartſtreet	266	195
Olaves in the Jewry	43	25
Olaves in Silverſtreet	174	103
Pancras by Soperlane	17	8
Peter in Cheap	68	44
Peters in Corn-hill	318	78
Peters at Pauls Wharf	97	68
Peters poor in Broadſtreet	52	27
Stevens in Colemanſtreet	506	350
Stevens in Walbrook	25	13
Swithins at Londonſtone	99	60
Thomas Apoſtles	141	107
Trinity Pariſh	148	87

Buried within the 97. Pariſhes within the Walls of, all Diſeaſes. — 14340.
Where of, of the Plague. — 9197.

Andrews in Holborn	2190	1636	Georges Southwark	1608	912
Bartholmew the Great	516	360	Giles Cripplegate	3988	2338
Bartholmew the leſs	111	65	Olaves in Southwark	3689	2609
Brides Pariſh	1481	1031	Saviours in Southwark	2746	1671
Botolph Algate	2573	1653	Sepulchres Pariſh	3425	2420
Bridewel Precinct	213	152	Thomas in Southwark	335	277
Bottolph Biſhopgate	2334	714	Trinity in the Minories	131	87
Botolph Alderſgate	578	307	At the Peſthouſe	194	189
Dunſtanes the Weſt	860	642			

Buried in the 16 Pariſhes without the Walls, ſtanding part within the Liberties, and part without: in Middleſex, and Surrey, and at the Peſthouſe. — 26972
Whereof, of the Plague — 17153

Buried in the nine out-Pariſhes.

Clements Templebar	1284	755	Martins in the Fields	1470	973
Giles in the Fields	1333	947	Mary White-chappel	3305	2272
James at Clarkenwell	1191	903	Magdalens Bermondſey	1127	889
Katherins by the Tower	998	744	Savoy Pariſh	250	176
Leonards in Shorditch	1995	1407			

Buried in the nine out Pariſhes, in Middleſex, and Surrey — 12953
Whereof, of the Plague — 9067

The

The Total of all the Burials of all Diſeaſes, within the Walls, without the Walls, in the Liberties, in Middleſex and Surrey: with the nine Out Pariſhes and the Peſt-houſe.		54265.
Whereof, Buried of the Plague, this preſent year, is		35417
	Chriſtnings this preſent year, is	6983
	Pariſhes clear this year, is	1
	Pariſhes infected this year, is	121

5. In the Year 1626. the City of *Weſtminſter* in imitation of *London*, was inſerted. The groſſe accompt of the *Burials*, and *Chriſtnings*, with diſtinction of the *Plague* being only taken notice of therein: the fifth, or laſt Canton, or Lined-ſpace, of the ſaid Bill, being varyed into the form following, *viz.*

In *Weſtminſter* this Year,	*Buried*	471
	Plague	13
	Chriſtenings	361

6. In the Year 1629. An accompt of the *Diſeaſes*, and *Caſualties* whereof any dyed, together with the diſtinction of *Males* and *Females*, making the ſixth Canton of the Bill, was added in manner following.

The Canton of Caſualties, *and of the Bill for the Year* 1639. *being of the ſame forme with that of* 1629.

The Diſeaſes, and Caſualties this year being 1632.

Abortive, and Stilborn	445
Affrighted	1
Aged	628
Ague	43
Apoplex, and Meagrom	17
Bit with a mad dog	1
Bleeding	3
Bloody flux, ſcowring, and flux	348
Bruſed, Iſſues, ſores, and ulcers,	28
Burnt, and Scalded	5
Burſt, and Rupture	9
Cancer, and Wolf	10
Canker	1
Childbed	171
Chriſomes, and Infants	2268
Cold, and Cough	55
Colick, Stone, and Strangury	56
Conſumption	1797
Convulſion	241
Cut of the Stone	5
Dead in the ſtreet, and ſtarved	6
Dropſie, and Swelling	267
Drowned	34
Executed, and preſt to death	18
Falling Sickneſs	7
Fever	1108
Fiſtula	13
Flocks, and ſmall Pox	531
French Pox	12
Gangrene	5
Gout	4
Grief	11
Jaundies	43
Jawfaln	8
Impoſtume	74
Kil'd by ſeveral accidents	46
King's Evil	38
Lethargie	2
Livergrown	87
Lunatique	5
Made away themſelves	15
Meaſles	80
Murthered	7
Over-laid, and ſtarved at nurſe	7
Palſie	25
Piles	1
Plague	8
Planet	13
Pleuriſie, and Spleen	36
Purples, and ſpotted Feaver	38
Quinſie	7
Riſing of the Lights	98
Sciatica	1
Scurvey, and Itch	9
Suddenly	62
Surfet	86
Swine Pox	6
Teeth	470
Thruſh, and Sore mouth	40
Tympany	13
Tiſſick	34
Vomiting	1
Worms	27

Chriſtened { Males 4994, Females 4590, In all 9584 } Buried { Males 4932, Females 4603, In all 9535 } Whereof, of the Plague 8

Increaſed in the Burials in the 122 Pariſhes, and at the Peſthouſe this year 993
Decreaſed of the Plague in the 122 Pariſhes, and at the Peſthouſe this year, 266

7. In the year 1636, the Accompt of the *Burials*, and *Chriſtnings* in the Pariſhes of *Iſlington*, *Lambeth*, *Stepney*, *Newington*, *Hackney*, and *Redriff*, were added in the manner following, making a ſeventh Canton, *viz.*

In Margaret Weſtminſter	Chriſtned — 440 Buried — — 890 Plague — 0	Newington	Chriſtned — 99 Buried — — 181 Plague — — 0
Iſlington	Chriſtned — 36 Buried — — 113 Plague — — 0	Hackney	Chriſtned — 30 Buried — — 91 Plague — — 0
Lambeth	Chriſtned — 132 Buried — — 220 Plague — — 0	Redriff	Chriſtned — 16 Buried — — 48 Plague — — 0
Stepney	Chriſtned — 892 Buried — — 1486 Plague — — 0		

The total of all the Burials in the ſeven laſt Pariſhes this Year — 2958
Whereof of the Plague — 0
The total of all the Chriſtnings — 1645

8. *Covent Garden* being made a Pariſh, the nine out-Pariſhes were called the ten out-Pariſhes, the which in former years were but eight.

9. In the year 1660. the laſt-mentioned ten Pariſhes, with *Weſtminſter*, *Iſlington*, *Lambeth*, *Stepney*, *Newington*, *Hackney*, and *Redriff*, are entered under two Diviſions, *viz.* the one containing the twelve Pariſhes lying in *Middleſex*, and *Surrey*, and the other the five Pariſhes within the City, and Liberties of *Weſtminſter*, viz. St. *Clement-Danes*, St. *Paul's-Covent-Garden*, St. *Martin's* in the *Fields*, St. *Mary-Savoy*, and St. *Margaret's Weſtminſter*.

10. We have hitherto deſcribed the ſeveral ſteps, whereby

whereby the *Bills* of *Mortality* are come up to their preſent ſtate; we come next to ſhew how they are made, and compoſed, which is in this manner, *viz.* When any one dies, then, either by tolling, or ringing of a Bell, or by beſpeaking of a Grave of the *Sexton*, the ſame is known to the *Searchers*, correſponding with the ſaid *Sexton*.

11. The *Searchers* hereupon (who are antient Matrons, ſworn to their Office) repair to the place, where the dead Corps lies, and by view of the ſame, and by other enquiries, they examine by what *Diſeaſe*, or *Caſualty* the Corps died. Hereupon they make their Report to the *Pariſh-Clerk*, and he, every *Tueſday* night, carries in an Accompt of all the *Burials*, and *Chriſtnings*, hapning that Week, to the *Clerk* of the *Hall*. On *Wedneſday* the general Accompt is made up, and Printed, and on *Thurſdays* publiſhed, and diſperſed to the ſeveral Families, who will pay four ſhillings *per Annum* for them.

12. *Memorandum*, That although the general yearly *Bills* have been ſet out in the ſeveral varieties aforementioned, yet the Original Entries in the *Hall-books* were as exact in the very firſt Year as to all particulars, as now; and the ſpecifying of *Caſualties* and *Diſeaſes*, was probably more.

Cap. II.

General Obſervations upon the Caſualties.

IN my Diſcourſes upon theſe *Bills* I ſhall firſt ſpeak of the *Caſualties*, then give my Obſervations with reference to the *Places*, and *Pariſhes* comprehended in the *Bills*; and next of the *Years*, and *Seaſons*.

1. There ſeems to be good reaſon, why the *Magiſtrate* ſhould himſelf take notice of the numbers of *Burials*, and *Chriſtnings*, viz. to ſee, whether the City increaſe or decreaſe in people; whether it increaſe proportionably with the reſt of the Nation; whether it be grown big enough, or too big, *&c.* But why the ſame ſhould be made known to the People, otherwiſe then to pleaſe them as with a curioſity, I ſee not.

2. Nor could I ever yet learn (from the many I have asked, and thoſe not of the leaſt *Sagacity*) to what purpoſe the diſtinction between *Males* and *Females* is inſerted, or at all taken notice of; or why that of *Marriages* was not equally given in? Nor is it obvious to every body, why the Accompt of *Caſualties* (whereof we are now ſpeaking) is made? The reaſon, which ſeems moſt obvious for this latter, is, That the ſtate of health in the City may at all times appear.

3. Now it may be Objected, That the ſame depends moſt upon the Accompts of *Epidemical Diſeaſes*, and upon the chief of them all, the *Plague*; wherefore the mention of the reſt ſeems onely matter of curioſity.

4. But

4. But to this we anſwer; That the knowledg even of the numbers, which die of the *Plague*, is not ſufficiently deduced from the meer Report of the *Searchers*, which onely the Bills afford; but from other Ratiocinations, and comparings of the *Plague* with ſome other *Caſualties*.

5. For we ſhall make it probable, that in Years of *Plague* a quarter part more dies of that *Diſeaſe* then are ſet down; the ſame we ſhall alſo prove by the other *Caſualties*. Wherefore, if it be neceſſary to impart to the World a good Accompt of ſome few *Caſualties*, which ſince it cannot well be done without giving an Accompt of them all, then is our common practiſe of ſo doing very apt, and rational.

6. Now, to make theſe Corrections upon the perhaps, ignorant, and careleſs *Searchers* Reports, I conſidered firſt of what Authority they were in themſelves, that is, whether any credit at all were to be given to their Diſtinguiſhments: and finding that many of the *Caſualties* were but matter of ſenſe, as whether a Childe were *Abortive*, or *Stilborn*; whether men were *Aged*, that is to ſay, above ſixty years old, or thereabouts, when they died, without any curious determination, whether ſuch *Aged* perſons died purely of *Age*, as for that the *Innate heat* was quite extinct, or the *Radical moiſture* quite dried up (for I have heard ſome Candid *Phyſicians* complain of the darkneſs, which themſelves were in hereupon) I ſay, that theſe Diſtinguiſhments being but matter of ſenſe, I concluded the *Searchers* Report might be ſufficient in the Caſe.

7. As for *Conſumptions*, if the *Searchers* do but truly Report,

Report (as they may) whether the dead Corps were very lean, and worn away, it matters not to many of our purpoſes, whether the Diſeaſe were exactly the ſame, as *Phyſicians* define it in their Books. Moreover, In caſe a man of ſeventy five years old died of a *Cough* (of which had he been free, he might have poſſibly lived to ninety) I eſteem it little errour (as to many of our purpoſes) if this Perſon be, in the Table of *Caſualties*, reckoned among the *Aged*, and not placed under the Title of *Coughs*.

8. In the matter of *Infants* I would deſire but to know clearly, what the *Searchers* mean by *Infants*, as whether Children that cannot ſpeak, as the word *Infans* ſeems to ſignifie, or Children under two or three years old, although I ſhould not be ſatisfied, whether the *Infant* died of *Winde*, or of *Teeth*, or of the *Convulſion*, &c. or were choak'd with *Phlegm*, or elſe of *Teeth*, *Convulſion*, and *Scowring*, apart, or together, which, they ſay, do often cauſe one another: for, I ſay, it is ſomewhat, to know how many die uſually before they can ſpeak, or how many live paſt any aſsigned number of years.

9. I ſay, it is enough, if we know from the *Searchers* but the moſt predominant Symptomes; as that one died of the *Head-Ache*, who was ſorely tormented with it, though the *Phyſicians* were of Opinion, that the Diſeaſe was in the *Stomach*. Again, if one died *ſuddenly*, the matter is not great, whether it be reported in the Bills, *Suddenly*, *Apoplexie*, or *Planet-ſtrucken*, &c.

10. To conclude, In many of theſe caſes the *Searchers* are able to report the Opinion of the *Phyſician*,

ſcian, who was with the Patient, as they receive the ſame from the Friends of the Defunct, and in very many caſes, ſuch as *Drowning*, *Scalding*, *Bleeding*, *Vomiting*, *making-away them ſelves*, *Lunatiques*, *Sores*, *Small-Pox*, &c. their own ſenſes are ſufficient, and the generality of the World, are able prettie well to diſtinguiſh the *Gowt*, *Stone*, *Dropſie*, *Falling-Sickneſs*, *Palſie*, *Agues*, *Pluriſy*, *Rickets*, &c. one from another.

11. But now as for thoſe Caſualties, which are apteſt to be confounded, and miſtaken, I ſhall in the enſuing Diſcourſe preſume to touch upon them ſo far, as the Learning of theſe Bills hath enabled me.

12. Having premiſed theſe general Advertiſements, our firſt Obſervation upon the *Caſualties* ſhall be, that in twenty Years there dying of all diſeaſes and *Caſualties*, 229250. that 71124. dyed of the *Thruſh*, *Convulſion*, *Rickets*, *Teeth*, and *Worms*; and as *Abortives*, *Chryſomes*, *Infants*, *Liver-grown*, and *Overlaid*; that is to ſay, that about $\frac{1}{3}$. of the whole died of thoſe Diſeaſes, which we gueſs did all light upon Children under four or five Years old.

13. There died alſo of the *Small-Pox*, *Swine-Pox*, and *Meaſles*, and of *Worms* without *Convulſions*, 12210. of which number we ſuppoſe likewiſe, that about $\frac{1}{2}$. might be Children under ſix Years old. Now, if we conſider that 16. of the ſaid 229 thouſand died of that extraordinary and grand *Caſualty* the *Plague*, we ſhall finde that about thirty ſix *per centum* of all quick conceptions, died before ſix years old.

14. The ſecond Obſervation is; That of the ſaid 229250. dying of all Diſeaſes, there died of acute Diſeaſes

Diſeaſes (the *Plague* excepted) but about 50000. or $\frac{2}{9}$ parts. The which proportion doth give a meaſure of the ſtate, and diſpoſition of this *Climate*, and *Air*, as to health, theſe *acute*, and *Epidemical* Diſeaſes happening ſuddenly, and vehemently, upon the like corruptions, and alterations in the *Air*.

15. The third Obſervation is, that of the ſaid 229. thouſand about 70. died of *Chronical* Diſeaſes, which ſhews (as I conceive) the ſtate, and diſpoſition of the Country (including as well it's *Food*, as *Air*) in reference to health, or rather to *longævity*: for as the proportion of *Acute* and *Epidemical* Diſeaſes ſhews the aptneſs of the *Air* to ſuddain and vehement Impreſſions, ſo the *Chronical* Diſeaſes ſhew the ordinary temper of the Place, ſo that upon the proportion of *Chronical* Diſeaſes ſeems to hang the judgment of the fitneſs of the Country for *long Life*. For, I conceive, that in Countries ſubject to great *Epidemical* ſweeps men may live very long, but where the proportion of the *Chronical* diſtempers is great, it is not likely to be ſo; becauſe men being long ſick, and alwayes ſickly, cannot live to any great age, as we ſee in ſeveral ſorts of *Metal-men*, who although they are leſs ſubject to acute Diſeaſes then others, yet ſeldome live to be old, that is, not to reach unto thoſe years, which *David* ſaies is the age of man.

16. The fourth Obſervation is; That of the ſaid 229000. not 4000. died of outward Griefs, as of *Cancers, Fiſtulaes, Sores, Ulcers, broken and bruiſed Limbs, Impoſtumes, Itch, King's-evil, Leproſie, Scald-head, Swine-Fox, Wens*, &c. *viz.* not one in 60.

17. In the next place, whereas many perſons live

live in great fear, and apprehenſion of ſome of the more formidable, and notorious diſeaſes following; I ſhall onely ſet down how many died of each: that the reſpective numbers, being compared with the Total 229250, thoſe perſons may the better underſtand the hazard they are in.

Table of notorious Diſeaſes.

Apoplex	1306
Cut of the Stone	0038
Falling Sickneſs	0074
Lead in the ſtreets	0243
Gowt	0134
Head-Ach	0051
Jaundice	0998
Lethargy	0067
Leproſy	0006
Lunatique	0158
Overlaid, and Starved	0529
Palſy	0423
Rupture	0201
Stone and Strangury	0863
Sciatica	0005
Sodainly	0454

Table of Caſualties.

Bleeding	069
Burnt, and Scalded	125
Drowned	829
Exceſſive drinking	002
Frighted	022
Grief	279
Hanged themſelves	222
Kill'd by ſeveral accidents	1021
Murthered	0086
Poyſoned	014
Smothered	026
Shot	007
Starved	051
Vomiting	136

18. In the foregoing Obſervations we ventured to make a Standard of the healthfulneſs of the *Air* from the proportion of *Acute* and *Epidemical* diſeaſes, and of the wholeſomeneſs of the Food from that of the *Chronical*. Yet, foraſmuch as neither of them alone do ſhew the *longævity* of the Inhabitants, we

ſhall in the next place come to the more abſolute Standard, and Correction of both, which is the proportion of the aged, *viz.* 15757 to the Total 229250. That is of about 1. to 15. or 7 *per Cent.* Onely the queſtion is, what number of Years the *Searchers* call *Aged*, which I conceive muſt be the ſame, that *David* calls ſo, *viz.* 70. For no man can be ſaid to die properly of *Age*, who is much leſs: it follows from hence, that if in any other Country more then ſeven of the 100 live beyond 70. ſuch Country is to be eſteemed more healthfull then this of our City.

19. Before we ſpeak of particular *Caſualties*, we ſhall obſerve, that among the ſeveral *Caſualties* ſome bear a conſtant proportion unto the whole number of *Burials*; ſuch are *Chronical* diſeaſes, and the diſeaſes, whereunto the City is moſt ſubject; as for Example, *Conſumptions*, *Dropſies*, *Jaundice*, *Gowt*, *Stone*, *Palſie*, *Scurvy*, *riſing of the Lights*, or *Mother*, *Rickets*, *Aged*, *Agues*, *Feavers*, *Bloody-Flux*, and *Scowring*: nay ſome Accidents, as *Grief*, *Drowning*, *Men's making away themſelves*, and being *Kil'd by ſeveral Accidents*, &c. do the like, whereas *Epidemical*, and *Malignant* diſeaſes, as the *Plague*, *Purples*, *Spotted-Feaver*, *Small-Pox*, and *Meaſles* do not keep that equality, ſo as in ſome Years, or Moneths, there died ten times as many as in others.

CHAP.

CHAP. III.

Of Particular Caſualties.

1. MY firſt Obſervation is, That few are *ſtarved.* This appears, for that of the 229250 which have died, we find not above fifty one to have been *ſtarved,* excepting helpleſs *Infants* at Nurſe, which being cauſed rather by careleſneſs, ignorance, and infirmity of the Milch-women, is not properly an effect, or ſign of want of food in the Countrey, or of means to get it.

2. The Obſervation, which I ſhall add hereunto, is, That the vaſt numbers of *Beggars,* ſwarming up and down this City, do all live, and ſeem to be moſt of them healthy and ſtrong; whereupon I make this Queſtion, Whether, ſince they do all live by Begging, that is, without any kind of labour; it were not better for the State to keep them, even although they earned nothing; that ſo they might live regularly, and not in that Debauchery, as many Beggars do; and that they might be cured of their bodily Impotencies, or taught to work, *&c.* each according to his condition, and capacity; or by being employed in ſome work (not better undone) might be accuſtomed, and fitted for labour.

3. To this ſome may Object; That *Beggars* are now maintained by voluntary Contributions, whereas in the other way the ſame muſt be done by a ge-

neral Tax; and consequently the Objects of Charity would be removed, and taken away.

4. To which we Answer; That in *Holland*, although no where fewer Beggars appear to charm up commiseration in the credulous, yet no where is there greater, or more frequent Charity: onely indeed the Magistrate is both the *Beggar*, and the *disposer* of what is gotten by *begging*; so as all Givers have a Moral certainty, that their Charity shall be well applied.

5. Moreover, I question; Whether what we give to a Wretch, that shews us lamentable sores, and mutilations, be always out of the purest charity? that is, purely for God's sake; for as much as when we see such Objects, we then feel in our selves a kinde of pain, and passion by consent; of which we ease our selves, when we think we have eased them, with whom we sympathized: or else we bespeak aforehand the like commiseration in others towards our selves, when we shall (as we fear we may) fall into the like distress.

6. We have said, *'Twere better the Publick should keep the Beggars, though they earned nothing*, &c. But most men will laugh to hear us suppose, That any able to work (as indeed most *Beggars* are, in one kind of measure, or another) should be kept without earning any thing. But we Answer, That if there be but a certain proportion of work to be done; and that the same be already done by the *not-Beggars*; then to employ the *Beggars* about it, will but transfer the want from one hand to another; nor can a Learner work so cheap as a skilfull practised Artist can. As for example, A practised *Spinner* shall spin a pound of Wool

Wool worth two ſhillings for ſix pence; but a learner, undertaking it for three pence, ſhall make the Wool indeed into Yarn, but not worth twelve pence.

7. This little hint is the model of the greateſt work in the World, which is the making *England* as conſiderable for Trade as *Holland*; for there is but a certain proportion of Trade in the world, and *Holland* is prepoſſeſſed of the greater part of it, and is thought to have more skill, and experience to manage it: wherefore, to bring *England* into *Holland*'s condition, as to this particular, is the ſame, as to ſend all the Beggars about *London* into the *Weſt-Countrey* to Spin, where they ſhall onely ſpoil the *Clothiers* Wool, and beggar the preſent Spinners at beſt; but, at worſt, put the whole Trade of the Countrey to a ſtand, untill the *Hollander*, being more ready for it, have ſnapt that with the reſt.

8. My next Obſervation is; That but few are *Murthered*, viz. not above 86 of the 22950. which have died of other diſeaſes, and caſualties; whereas in *Paris* few nights ſcape without their *Tragedie*.

9. The Reaſons of this we conceive to be *Two*: One is the *Government*, and *Guard* of the City by *Citizens* themſelves, and that alternately. No man ſettling into a Trade for that employment. And the other is, The natural, and cuſtomary abhorrence of that inhumane *Crime*, and all *Bloodſhed* by moſt *Engliſhmen*: for of all that are *Executed* few are for *Murther*. Beſides the great and frequent Revolutions, and Changes of *Government* ſince the year 1650, have been with little *bloodſhed*; the *Uſurpers* themſelves having *Executed* few in compariſon, upon the

Accompt

Accompt of disturbing their Innovations.

10. In brief, when any dead Body is found in *England*, no *Algebraist*, or *Uncipherer* of Letters, can use more subtile suppositions, and varietie of conjectures to finde out the Demonstration, or Cipher; then every common unconcerned Person doth to finde out the Murtherers, and that for ever, untill it be done.

11. The *Lunaticks* are also but few, *viz.* 158 in 229250. though I fear many more then are set down in our *Bills*, few being entred for such, but those who die at *Bedlam*; and there all seem to die of their *Lunacie*, who died *Lunaticks*; for there is much difference in computing the number of *Lunaticks*, that die (though of *Fevers*, and all other Diseases, unto which *Lunacie* is no *Supersedeas*) and those, that die by reason of their *Madnes*.

12. So that, this *Casualty* being so uncertain, I shall not force my self to make any inference from the numbers, and proportions we finde in our Bills concerning it: onely I dare ensure any man at this present, well in his Wits, for one in the thousand, that he shall not die a *Lunatick* in *Bedlam*, within these seven years, because I finde not above one in about one thousand five hundred have done so.

13. The like use may be made of the Accompts of men, that made away themselves, who are another sort of Mad-men, that think to ease themselves of pain by leaping into *Hell*; or else are yet more Mad, so as to think there is no such place; or that men may go to rest by death, though they die in *self-murther*, the greatest Sin.

14. We

14. We ſhall ſay nothing of the numbers of thoſe, that have been *Drowned, Killed by falls from Scaffolds*, or by *Carts running over them*, &c. becauſe the ſame depends upon the caſual Trade, and Employment of men, and upon matters, which are but circumſtantial to the Seaſons, and Regions we live in; and affords little of that Science, and Certainty we aim at.

15. We finde one *Caſualty* in our Bills, of which though there be daily talk, there is little effect, much like our abhorrence of *Toads*, and *Snakes*, as moſt poiſonous Creatures, whereas few men dare ſay upon their own knowledge, they ever found harm by either; and this *Caſualty* is the *French-Pox*, gotten, for the moſt part, not ſo much by the intemperate uſe of *Venery* (which rather cauſeth the *Gowt*) as of many common Women.

16. I ſay, the Bills of *Mortality* would take off theſe Bars, which keep ſome men within bounds, as to theſe extravagancies: for in the afore-mentioned 229250 we finde not above 392 to haved died of the *Pox*. Now, forasmuch as it is not good to let the World be lulled into a ſecurity, and belief of Impunity by our Bills, which we intend ſhall not be onely as *Death's-heads* to put men in minde of their *Mortality*, but alſo as *Mercurial Statues* to point out the moſt dangerous ways, that lead us into it, and miſery. We ſhall therefore ſhew, that the *Pox* is not as the *Toads*, and *Snakes* afore-mentioned, but of a quite contrary nature, together with the reaſon, why it appears otherwiſe.

17. Forasmuch as by the ordinary diſcourſe of the world it ſeems a great part of men have, at one time,

or

or other, had ſome *ſpecies* of this diſeaſe, I wondering why ſo few died of it, eſpecially becauſe I could not take that to be ſo harmleſs, whereof ſo many complained very fiercely; upon inquiry I found that thoſe who died of it out of the Hoſpitals (eſpecially that of *King's-Land*, and the *Lock* in *Southwark*) were returned of *Ulcers*, and *ſores*. And in brief I found, that all mentioned to die of the *French-Pox* were retured by the *Clerks* of Saint *Giles's*, and Saint *Martin's in the Fields* onely; in which place I underſtood that moſt of the vileſt, and moſt miſerable houſes of uncleanneſs were: from whence I concluded, that onely *hated* perſons, and ſuch, whoſe very *Noſes* were eaten of, were reported by the *Searchers* to have died of this too frequent *Maladie*.

18. In the next place, it ſhall be examined under what name, or *Caſualtie*, ſuch as die of theſe diſeaſes are brought in: I ſay, under the *Conſumption*: forasmuch, as all dying thereof die ſo emaciated and lean (their *Ulcers* diſappearing upon Death) that the Old-women *Searchers* after the miſt of a Cup of *Ale*, and the bribe of a two-groat fee, inſtead of one, given them, cannot tell whether this emaciation, or leanneſs were from a *Phthiſis*, or from an *Hectick Fever*, *Atrophy*, &c. or from an Infection of the *Spermatick* parts, which in length of time, and in various diſguiſes hath at laſt vitiated the habit of the Body, and by diſabling the parts to digeſt their nouriſhment brought them to the condition of Leanneſs above-mentioned.

19. My next Obſervation is, that of the *Rickets* we finde no mention among the *Caſualties*; untill the Year

year 1634. and then but of 14 for that whole year.

20. Now the Queſtion is, whether that Diſeaſe did firſt appear about that time; or whether a Diſeaſe, which had been long before, did then firſt receive its Name?

21. To clear this Difficulty out of the Bills (for I dare venture on no deeper Arguments:) I enquired what other Caſualties before the year 1634, named in the Bills, was moſt like the *Rickets*; and found, not onely by Pretenders to know it, but alſo from other Bills, that *Liver-grown* was the neareſt. For in ſome years I finde *Liver-grown*, *Spleen*, and *Rickets*, put all together, by reſon (as I conceive) of their likeneſs to each other. Hereupon I added the *Liver-growns* of the year 1634, *viz.* 77, to the *Rickets* of the ſame year, *viz.* 14. making in all 91. which Total, as alſo the Number 77. it ſelf, I compared with the *Liver-grown* of the precedent year, 1633, *viz.* 82. All which ſhewed me, that the *Rickets* was a new Diſeaſe over and above.

22. Now, this being but a faint Argument, I looked both forwards and backwards, and found, that in the year 1629, when no *Rickets* appeared, there was but 94 *Liver-growns*; and in the year 1656. there was 99 *Liver-grown*, although there were alſo 50 of the *Rickets*: onely this is not to be denyed, that when the *Rickets* grew very numerous (as in the year 1660, *viz.* to be 521.) then there appeared not above 15 of *Liver-grown*.

23. In the year 1659 were 441 *Rickets*, and 8 *Liver-grown*. In the year 1658, were 476 *Rickets*, and 51 *Liver-grown*. Now, though it be granted that

 theſe

these Diseases were confounded in the judgment of the *Nurses*, yet it is most certain, that the *Liver-grown* did never but once, *viz.* *Anno* 1630, exceed 100. whereas *Anno* 1660, *Liver-grown*, and *Rickets* were 536.

24. It is also to be observed, That the *Rickets* were never more numerous then now, and that they are still increasing; for *Anno* 1649, there was but 190, next year 260, next after that 329. and so forwards, with some little starting backwards in some years, untill the year 1660, which produced the greatest of all.

25. Now, such backstartings seem to be universal in all things; for we do not onely see in the progressive motion of the wheels of *Watches*, and in the rowing of *Boats*, that there is a little starting, or jerking backwards between every step forwards, but also (if I am not much deceived) there appeared the like in the motion of the *Moon*, which in the long *Telescopes* at *Gresham-College* one may sensibly discern.

26. There seems also to be another new Disease, called by our Bills *The stopping of the Stomack*, first mentioned in the year 1636, the which *Malady* from that year to 1647, increased but from 6 to 29; *Anno* 1655 it came to be 145. In 57, to 277. In 60, to 214. Now these proportions far exceeding the difference of proportion generally arising from the increase of Inhabitants, and from the resort of *Advenæ* to the City, shews there is some new Disease, which appeareth to the Vulgar as *A stopping of the Stomach.*

27. Here-

27. Hereupon I apprehended, that this *Stopping* might be the *Green-ſickneß*, for as much as I finde few, or none, to have been returned upon that Accompt, although many be viſibly ſtained with it. Now whether the ſame be forborn out of ſhame, I know not? For ſince the world believes, that Marriage cures it, it may ſeem indeed a ſhame, that any Maid ſhould die uncured, when there are more *Males* then *Females*, that is, an overplus of Husbands to all that can be Wives.

28. In the next place I conjectured, that this *ſtopping of the Stomach* might be the *Mother*, for as much as I have heard of many troubled with *Mother-fits* (as they call them) although few returned to have died of them; which conjecture, if it be true, we may then ſafely ſay, That the *Mother-fits* have alſo increaſed.

29. But I was ſomewhat taken off from thinking this *ſtopping of the Stomach* to be the *Mother*, becauſe I gueſſed rather the *Riſing of the Lights* might be it. For I remembred that ſome Women, troubled with the *Mother-fits*, did complain of a *choaking in their Throats*. Now as I underſtand, it is more conceivable, that the *Lights*, ot *Lungs* (which I have heard called *The Bellows of the Body*) not blowing, that is, neither venting out, nor taking in breath, might rather cauſe ſuch a *Choaking*, then that the *Mother* ſhould riſe up thither, and do it. For me-thinks, when a woman is with childe, there is a greater riſing, and yet no ſuch Fits at all.

30. But what I have ſaid of the *Rickets*, and *ſtopping of the Stomach*, I do in ſome meaſure ſay of the

Riſing of the Lights alſo, *viz.* that theſe *Riſings* (be they what they will) have increaſed much above the general proportion; for in 1629 there was but 44, and in 1660, 249, *viz.* almoſt ſix times as many.

31. Now for as much as *Rickets* appear much in the *Over-growing* of *Childrens Livers*, and *Spleens* (as by the Bills may appear) which ſurely may cauſe *ſtopping of the Stomach* by ſqueezing, and crowding upon that part. And for as much as theſe *Choakings*, or *Riſings of the Lights* may proceed from the ſame ſtuffings, as make the *Liver*, and *Spleen* to over-grow their due proportion. And laſtly, for as much as the *Rickets, ſtopping of the Stomach, and riſing of the Lights*, have all increaſed together, and in ſome kinde of correſpondent proportions; it ſeems to me, that they depend one upon another. And that what is the *Rickets* in children may be the other in more grown bodies; for ſurely children, which recover of the *Rickets*, may retain ſomewhat ſufficient to cauſe what I have imagined; but of this let the learned *Phyſicians* conſider, as I preſume they have.

32. I had not medled thus far, but that I have heard, the firſt hints of the circulation of the Blood were taken from a common Perſon's wondering what became of all the blood which iſſued out of the heart, ſince the heart beats above three thouſand times an hour, although but one drop ſhould be pumpt out of it, at every ſtroke.

33. The *Stone* ſeemed to decreaſe: for in 1632, 33, 34, 35, and 36. there died of the *Stone*, and *Strangury*, 254. And in the Years 1655, 56, 57, 58, 59, and 1660, but 250, which numbers although indeed

deed they be almoſt equal, yet conſidering the Burials of the firſt named five Years were but half thoſe of the latter, it ſeems to be decreaſed by about one half.

34. Now the *Stone*, and *Strangury*, are diſeaſes, which moſt men know, that feel them, unleſs it be in ſome few caſes, where (as I have heard *Phyſicians* ſay) a *Stone* is held up by the *Filmes* of the *Bladder*, and ſo kept from grating, or offending it.

35. The *Gowt* ſtands much at a ſtay, that is, it anſwers the general proportion of Burials; there dies not above one of 1000. of the *Gowt*, although I believe that more die *Gowty*. The reaſon is, becauſe thoſe that have the *Gowt*, are ſaid to be *Long-livers*, and therefore, when ſuch die, they are returned as *Aged*.

36. The *Scurvy* hath likewiſe increaſed, and that gradually from 12. *Anno* 1629. to 95. *Anno* 1660.

37. The *Tyſſick* ſeems to be quite worn away, but that it is probable the ſame is entred as *Cough*, or *Conſumption*.

38. *Agues* and *Fevers* are entred promiſcuouſly, yet in the few Bills, wherein they have been diſtinguiſhed, it appears, that not above one in 40, of the whole are *Agues*.

39. The *Abortives*, and *Stil-born* are about the twentieth part of thoſe that are *Chriſtned*, and the numbers ſeem the ſame thirty Years ago as now, which ſhews there were more proportion in thoſe Years then now: or elſe that in theſe latter Years due Accompts have not been kept of the *Abortives*, as having been Buried without notice, and perhaps not in *Church-Yards*.

40. For

40. For that there hath been a neglect in the Accompts of the *Chriſtnings* is moſt certain, becauſe untill the year 1642, we finde the *Burials* but equal with the *Chriſtnings*, or near thereabouts, but in 1648, when the differences in *Religion* had changed the Government, the *Chriſtnings* were but two thirds of the *Burials*. And in the year 1659, not half, *viz.* the *Burials* were 14720. (of the *Plague* but 36) and the *Chriſtnings* were but 5670, which great diſproportion could be from no other Cauſe, then that above-mentioned, for as much as the ſame grew as the Confuſions, and Changes grew.

41. Moreover, although the Bills give us in *Anno* 1659 but 5670 *Chriſtnings*, yet they give us 421 *Abortives*, and 226 dying in *Child-bed*, whereas in the year 1631, when the *Abortives* were 410, that is, near the number of the year 1659, the *Chriſtnings* were 8288. Wherefore by the proportion of *Abortives Anno* 1659, the *Chriſtnings* ſhould have been about 8500, but if we ſhall reckon by the women dying in *Child-bed*, of whom a better Accompt is kept then of *Stil-borns*, and *Abortives*, we ſhall finde *Anno* 1659, there were 226 *Child-beds*; and *Anno* 1631, 112, *viz.* not ½. Wherefore I conceive that the true number of the *Chriſtnings Anno* 1659 is above double to the 5690 ſet down in our Bills; that is about 11500, and then the *Chriſtnings* will come near the ſame proportion to the *Burials*, as hath been obſerved in former times.

42. In regular Times, when Accompts were well kept, we finde that not above three in 200 died in *Child-bed*, and that the number of *Abortives* was about treble to that of the women dying in *Child-bed*, from

from whence we may probably collect, that not one woman of an hundred (I might ſay of two hundred) dies in her Labour; for as much as there be other Cauſes of a woman's dying within the Moneth, then the hardneſs of her Labour.

43. If this be true in theſe Countries, where women hinder the facility of their *Child-bearing* by affected ſtraightning of their Bodies; then certainly in *America*, where the ſame is not practiſed, Nature is little more to be taxed as to women, then in *Brutes*, among whom not one in ſome thouſands do die of their Deliveries: what I have heard of the *Iriſh-women* confirms me herein.

44. Before we quite leave this matter, we ſhall inſert the Cauſes, why the Accompt of *Chriſtnings* hath been neglected more then that of *Burials*: one, and the chief whereof was a Religious Opinion againſt *Baptizing of Infants*, either as unlawfull, or unneceſſary. If this were the onely reaſon, we might by our defects of this kinde, conclude the growth of this Opinion, and pronounce, that not half the People of *England*, between the years 1650, and 1660, were convinced of the need of *Baptizing*.

45. A ſecond Reaſon was, The ſcruples, which many Publick *Miniſters* would make of the worthineſs of Parents to have their Children Baptized, which forced ſuch queſtioned Parents, who did alſo not believe the neceſſity of having their Children Baptized by ſuch ſcrupulers, to carry their Children unto ſuch other *Miniſters*, as having performed the thing, had not the Authority or command of the *Regiſter* to enter the names of the Baptized.

46. A third Reaſon was, That a little Fee was to be paid for the *Regiſtrie*.

47. Upon the whole matter it is moſt certain, that the number of *Heterodox* Believers was very great between the ſaid year, 1650, and 1660, and ſo peeviſh were they, as not to have the Births of their Children *Regiſtred*, although thereby the time of their coming of Age might be known, in reſpect of ſuch Inheritances, as might belong unto them; and withall by ſuch *Regiſtring* it would have appeared unto what *Pariſh* each Childe had belonged, in caſe any of them ſhould happen to want its relief.

48. Of *Convulſions* there appeared very few, *viz.* but 52 in the year 1629, which 1636 grew to 709, keeping about that ſtay, till 1659, though ſometimes riſing to about 1000.

49. It is to be noted, that from 1629 to 1636, when the *Convulſions* were but few, the number of *Chryſoms*, and *Infants* was greater: for in 1629, there was of *Chryſoms*, and *Infants* 2596, and of the *Convulſion* 52, *viz.* of both, 2648. And in 1636 there was of *Infants* 1895, and of the *Convulſions* 709, in both 2604, by which it appears, that this difference is likely to be onely a confuſion in the Accompts.

50. Moreover, we finde that for theſe later years, ſince 1636, the Total of *Convulſions* and *Chryſoms* added together are much leſs, *viz.* by about 400 or 500, *per Annum*, then the like Totals from 1626 to 36, which makes me think, that *Teeth* alſo were thruſt in under the Title of *Chryſoms*, and *Infants*, in as much as in the ſaid years, from 1629 to 1639, the number of *Worms*, and *Teeth*, wants by about 400 *per Annum* of what we find in following years.

CHAP

Cap. IV.

Of the Plague.

1. BEfore we leave to diſcourſe of the *Caſualties*, we ſhall add ſomething concerning that greateſt *Diſeaſe*, or *Caſualty* of all, The *Plague*.

There have been in *London*, within this Age, four Times of great *Mortality*, that is to ſay, the years 1592, and 1593, 1603, 1625, and 1636.

There died *Annno* 1592 from *March* to *December*, —— 25886

Whereof of the *Plague* —— 11503

Anno 1593 —— 17844

Whereof of the *Plague* —— 10662

Chriſtned in the ſaid year —— 4021

Anno 1603 within the ſame ſpace of time, were Buried —— 37294

Whereof of the *Plague* —— 30561

Anno 1625, within the ſame ſpace, —— 51758

Whereof of the *Plague* —— 35417

Anno 1636, from *April* to *December* —— 23359

Whereof of the *Plague* —— 10400

2. Now it is manifeſt of it ſelf, in which of theſe years moſt died; but in which of them was the greateſt *Mortality* of all Diſeaſes in general, or of the *Plague* in particular, we diſcover thus. In the year 1592, and 1636, we finde the proportion of thoſe dying of the *Plague* in the whole to be

near alike, that is about 10 to 23. or 11 to 25. or as about two to five.

3. In the year 1625. we finde the *Plague* to bear unto the whole in proportion as 35 to 51. or 7 to 10. that is almoſt the triplicate of the former proportion, for the *Cube* of 7. being 343. and the *Cube* of 10. being 1000. the ſaid 343. is not $\frac{2}{3}$. of 1000.

4. In *Anno* 1603. the proportion of the *Plague* to the whole was as 30 to 37. *viz.* as 4. to 5. which is yet greater then that laſt of 7 to 20. For if the Year 1625. had been as great a *Plague*-Year as 1603. there muſt have died not onely 7 to 10. but 8 to 10. which in thoſe great numbers makes a vaſt difference.

5. We muſt therefore conclude the Year 1603. to have been the greateſt *Plague*-Year of this age.

6. Now to know in which of theſe 4. was the greateſt Mortality at large, we reaſon thus,

Anno 1592. Buried ——— 26490 / Chriſtned ——— 4277 } or as { 6 / 1

Anno 1603. There died in the whole Year of all ——— 38244 / Chriſtned ——— 4784 } or as { 8 / 1

Anno 1625. Died in the whole Year ——— 54265 / Chriſtned --6983 } or as { 8 / 1

1. to 8. or 1. $\frac{1}{4}$. to 10.

Anno 1636. There died, *ut ſuprà* ——— 23359 / Chriſtned ——— 9522 } or as { 5 / 2

7. From whence it appears, that *Anno* 1636. the Chriſtnings were about $\frac{2}{5}$. parts of the Burials. *Anno* 1592.

1592. but ⅛. but in the Year 1603. and 1625. not above an eighth, ſo that the ſaid two Years were the Years of greateſt *Mortality*. We ſaid that the year 1603. was the greateſt *Plague* year. And now we ſay, that the ſame was not a greater year of *Mortality* then *Anno* 1625. Now to reconcile theſe two Poſitions, we muſt alledg, that *Anno* 1625. there was errour in the Accompts, or Diſtinctions of the *Caſualties*; that is, more died of the *Plague* then were accompted for under that name. Which Allegation we alſo prove thus, *viz.*

8. In the ſaid year 1625. there are ſaid to have died of the *Plague* 35417. and of all other *Diſeaſes* 18848. whereas in the years, both before and after the ſame, the ordinary number of Burials was between 7. and 8000. ſo that if we add about 11000. (which is the difference between 7. and 18) to our 35. the whole will be 46000. which bears to the whole 54000. as about 4. to 5. thereby rendering the ſaid year 1625. to be as great a *Plague*-year as that of 1603. and no greater, which anſwers to what we proved before, *viz.* that the *Mortality* of the two Years was equal.

9. From whence we may probably ſuſpect that about ¼. part more died of the *Plague* then are returned for ſuch; which we further prove by noting, that *Anno* 1636. there died 10400. of the *Plague*, the ¼. whereof is 2600. Now there are ſaid to have died of all diſeaſes that Year 12959. out of which number deducting 2600. there remains 10359. more then which there died not in ſeveral years next before and after the ſaid year 1636.

10. The next Obſervation we ſhall offer is, that the *Plague* of 1603. laſted eight Years. In ſome whereof there died above 4000, in others above 2000, and in but one leſs then 600: whereas in the Year 1624. next preceding, and in the year 1626. next following the ſaid great *Plague*-year 1625. There died in the former but 11, and in the latter but 134. of the *Plague*. Moreover in the ſaid year 1625. the *Plague* decreaſed from its utmoſt number 4461 a week, to below 1000 within ſix weeks.

11. The *Plague* of 1636. laſted twelve Years, in eight whereof there died 2000. *per annum* one with another, and never under 300. The which ſhews, that the Contagion of the *Plague* depends more upon the Diſpoſition of the *Air*, then upon the *Effluvia* from the Bodies of Men.

12. Which alſo we prove by the ſudden jumps, which the *Plague* hath made, leaping in one Week from 118 to 927: and back again from 993 to 258: and from thence again the very next Week to 852. The which effects muſt ſurely be rather attributed to change of the *Air*, then of the Conſtitution of Mens bodies, otherwiſe then as this depends upon that.

13. It may be alſo noted, that many times other *Peſtilential* Diſeaſes, as *Purple-Feavers*, *Small-Pox*, &c. do forerun the *Plague* a Year, two, or three, for in 1622 there died but 8000. in 1623 11000: in 24. about 12000: till in 1625 there died of all Diſeaſes above 54000.

CHAP.

CHAP. V.

Other Obſervations upon the Plague, and Caſualties.

1. THe *Decreaſe*, and *Increaſe* of People is to be reckoned chiefly by *Chriſtnings*, becauſe few bear children in *London* but *Inhabitants*, though others die there. The Accompts of *Chriſtnings* were well kept, untill differences in *Religion* occaſioned ſome neglect therein, although even theſe neglects we muſt confeſs to have been regular, and proportionable.

2. By the numbers and proportions of *Chriſtnings*, therefore we obſerve as followeth, *viz.*

Firſt, That (when from *December*, 1602, to *March* following, there was little, or no *Plague*) then the *Chriſtnings* at a *Medium*, were between 110, and 130 *per Week*, few Weeks being above the one, or below the other; but when from thence to *July* the *Plague* increaſed, that then the *Chriſtnings* decreaſed to under 90.

Secondly, The Queſtion is, Whether *Teeming-women* died, or fled, or miſcarried? The later at this time, ſeems moſt probable, becauſe even in the ſaid ſpace, between *March*, and *July*, there died not above twenty *per Week* of the *Plague*, which ſmall number could neither cauſe the death, or flight of ſo many Women, as to alter the proportion $\frac{1}{4}$ part lower.

3. Moreover, we obſerve from the 21 of *July* to the

the 21 of *October*, the *Plague* increasing, reduced the *Christnings* to 70 at a *Medium*, diminishing the above proportion, down to $\frac{2}{5}$. Now the cause of this must be flying, and death, as well as miscarriages, and Abortions; for there died within that time about 25000, whereof many were certainly *Women with childe*, besides the fright of so many dying within so small a time might drive away so many others, as to cause this effect.

4. From *December* 1624, to the middle of *April* 1625, there died not above 5 a Week of the *Plague* one with another. In this time, the *Christnings* were one with another 180. The which decreased gradually by the 22 of *September* to 75, or from the proportion of 12 to 5, which evidently squares with our former Observation.

5. The next Observation we shall offer, is, The time wherein the City hath been *Re-peopled* after a great *Plague*: which we affirm to be by the second year. For in 1627, the *Christnings* (which are our Standard in this Case) were 8408, which in 1624 next preceding the *Plague* year 1625 (that had swept away above 54000) were but 8299, and the *Christnings* of 1626 (which were but 6701) mounted in one year to the said 8408.

6. Now the Cause hereof, for as much as it cannot be a supply by Procreations; *Ergo*, it must be by new Affluxes to *London* out of the Countrey.

7. We might fortifie this Assertion by shewing, that before the *Plague*-year, 1603, the *Christnings* were about 6000, which were in that very year reduced to 4789, but crept up the next year 1604, to 5458, recovering

covering their former ordinary proportion in 1605 of 6504, about which proportion it ſtood till the year 1610.

8. I ſay, it followeth, that, let the *Mortality* be what it will, the City repairs its loſs of Inhabitants within two years, which Obſervation leſſens the Objection made againſt the value of houſes in *London*, as if they were liable to great prejudice through the loſs of Inhabitants by the *Plague*.

Chap. VI.

Of the Sicklineſs, Healthfulneſs, and Fruitfulneſs of Seaſons.

1. HAving ſpoken of *Caſualties*, we come next to compare the ſicklineſs, healthfulneſs, and fruitfulneſs of the ſeveral Years, and Seaſons, one with another. And firſt, having in the Chapters aforegoing mentioned the ſeveral years of *Plague*, we ſhall next preſent the ſeveral other ſickly years; we meaning by *a ſickly Year*, ſuch wherein the *Burials* exceed thoſe, both of the precedent, and ſubſequent years, and not above 200 dying of the *Plague*, for ſuch we call *Plague-Years*; and this we do, that the World may ſee, by what ſpaces, and intervals we may hereafter expect ſuch times again. Now, we may not call that a more ſickly year, wherein more die, becauſe ſuch exceſs of *Burials* may proceed from increaſe, and acceſs of People to the City onely.

2. Such

2. Such ſickly years were 1618, 20, 23, 24, 1632, 33, 34, 1649, 52, 54, 56, 58, 61, as may be ſeen by the Tables.

3. In reference to this Obſervation, we ſhall preſent another, namely, That the more ſickly the years are, the leſs fecund, or fruitfull of Children alſo they be, which will appear, if the number of Children born in the ſaid ſickly years be leſs, then that of the years both next preceding, and next following; all which, upon view of the Tables, will be found true, except in a very few Caſes, where ſometimes the precedent, and ſometimes the ſubſequent years vary a little, but never both together. Moreover, for the confirmation of this Truth, we preſent you the year 1660, where the *Burials* were fewer then in either of the two next precedent years by 2000, and fewer then in the ſubſequent by above 4000. And withall, the number of *Chriſtnings* in the ſaid year 1660 was far greater then in any of the three years next aforegoing.

4. As to this year 1660, although we would not be thought *Superſtitious*, yet is it not to be neglected, that in the ſaid year was the *King*'s *Reſtauration* to his Empire over theſe three Nations, as if God Almighty had cauſed the healthfulneſs and fruitfulneſs thereof to repair the *Bloodſhed*, and *Clamities* ſuffered in his abſence. I ſay, this conceit doth abundantly counterpoiſe the Opinion of thoſe who think great *Plagues* come in with *Kings* reigns, becauſe it hapned ſo twice, *viz.* *Anno* 1603, and 1625, whereas as well the year 1648, wherein the preſent *King* commenced his right to reign, as alſo the year 1660, wherein he commenced the

the exerciſe of the ſame, were both eminently healthfull, which clears both *Monarchie*, and our preſent *King*'s *Familie* from what ſeditious men have ſurmiſed againſt them.

5. The Diſeaſes, which beſide the *Plague* make years unhealthfull in this City, are *Spotted Feavers*, *Small Pox*, *Dyſentery*, called by ſome *The Plague in the Guts*, and the unhealthfull Seaſon is the *Autumn*.

CHAP. VII.

Of the difference between Burials, and Chriſtnings.

1. THe next Obſervation is, That in the ſaid Bills there are far more *Burials*, then *Chriſtnings*. This is plain, depending onely upon *Arithmetical* computation; for, in 40 years, from the year 1603, to the year 1644, *excluſivè* of both years, there have been ſet down (as happening within the ſame ground, ſpace, or Pariſhes) although differently numbered, and divided, 363935 *Burials*, and but 330747 *Chriſtnings* within the 97, 16, and 10 out-Pariſhes, thoſe of *Weſtminſter*, *Lambeth*, *Newington*, *Redriff*, *Stepney*, *Hackney*, and *Iſlington*, not being included.

2. From this ſingle Obſervation it will follow, That *London* hath decreaſed in its People, the contrary whereof we ſee by its daily increaſe of Buildings upon new Foundations, and by the turning of great Palacious Houſes into ſmall Tenements. It is therefore certain, that *London* is ſupplied with People from

out of the Countrey, whereby not onely to repair the overplus difference of *Burials* above-mentioned, but likewiſe to increaſe its *Inhabitants* according to the ſaid increaſe of houſing.

3. This ſupplying of *London* ſeems to be the reaſon, why *Winchester*, *Lincoln*, and ſeveral other Cities have decreaſed in their Buildings, and conſequently in their *Inhabitants*. The ſame may be ſuſpected of many Towns in *Cornwal*, and other places, which probably, when they were firſt allowed to ſend *Burgeſſes* to the *Parliament*, were more populous then now, and bore another proportion to *London* then now; for ſeveral of thoſe *Burroughs* ſend two *Burgeſſes*, whereas *London* it ſelf ſends but four, although it bears the fifteenth part of the charge of the whole Nation in all *Publick* Taxes, and Levies.

4. But, if we conſider what I have upon exact enquiry found true, *viz.* That in the Countrie, within ninetie years, there have been 6339 *Chriſtnings*, and but 5280 *Burials*, the increaſe of *London* will be ſalved without inferring the decreaſe of the People in the Countrie; and withall, in caſe all *England* have but fourteen times more People then *London*, it will appear, how the ſaid increaſe of the Country may increaſe the People, both of *London*, and it ſelf; for if there be in the 97, 16, 10, and 7 Pariſhes, uſually comprehended within our Bills, but 460000 ſouls as hereafter we ſhall ſhew, then there are in all *England*, and *Wales*, 6440000 Perſons, out of which ſubſtract 460000, for thoſe in, and about *London*, there remains 5980000 in the Countrie, the which increaſing about $\frac{1}{7}$ part in 40 years, as we ſhall hereafter prove, doth happen

happen in the Countrie, the whole increaſe of the Countrie will be about 854000 in the ſaid time, out of which number, if but about 250000 be ſent up to *London* in the ſaid 40 years, *viz.* about 6000 *per Annum*, the ſaid *Miſſions* will make good the alterations, which we finde to have been in, and about *London*, between the years 1603 and 1644 above-mentioned. But that 250000 will do the ſame, I prove thus, *viz.* in the 8 years, from 1603 to 1612, the *Burials* in all the Pariſhes, and of all Diſeaſes, the *Plague* included, were at a *Medium* 9750 *per Annum*. And between 1635 and 1644 were 18000, the difference whereof is 8250, which is the Total of the increaſe of the *Burials* in 40 years, that is about 206 *per Annum*. Now, to make the *Burials* increaſe 206 *per Annum*, there muſt be added to the City thirty times as many (according to the proportion of 3 dying out of 41 Families) *viz.* 6180 *Advenæ*, the which number multiplied again by the 40 years, makes the *Product* 247200, which is leſs then the 250000 above propounded; ſo as there remains above 600000 of increaſe in the Countrie within the ſaid 40 years, either to render it more populous, or ſend forth into other Colonies, or Wars. But that *England* hath fourteen times more People, is not improbable, for the Reaſons following.

1. *London* is obſerved to bear about the fifteenth proportion of the whole Tax.

2. There is in *England*, and *Wales*, about 39000 ſquare Miles of Land, and we have computed that in one of the greateſt Pariſhes in *Hampſhire*, being alſo a Market-Town, and containing twelve ſquare Miles, there are 220 ſouls in every ſquare Mile, out

of which I abate $\frac{1}{4}$ for the overplus of People more in that Pariſh, then in other wilde Counties. So as the $\frac{3}{4}$ parts of the ſaid 220, multiplied by the Total of ſquare Miles, produces 640000 ſouls in all *London* included.

3. There are about 10000 Pariſhes in *England*, and *Wales*, the which, although they ſhould not contain the $\frac{1}{3}$ part of the Land, nor the $\frac{1}{4}$ of the People of that Country-Pariſh, which we have examined, yet may be ſuppoſed to contain about 600 People, one with another, according to which Accompt there will be ſix Millions of People in the Nation. I might add, that there are in *England*, and *Wales*, about five and twenty Millions of Acres at 16 $\frac{1}{2}$ Foot to the Perch; and if there be ſix Millions of People, then there is about four Acres for every head, which how well it agrees to the Rules of Plantation, I leave unto others, not onely as a means to examine my Aſſertion, but as an hint to their enquiry concerning the fundamental Trade, which is Husbandrie, and Plantation.

4. Upon the whole matter we may therefore conclude, That the People of the whole Nation do increaſe, and conſequently the decreaſe of *Wincheſter*, *Lincoln*, and other like places, muſt be attributed to other Reaſons, then that of refurniſhing *London* onely.

5. We come to ſhew, why although in the Country the *Chriſtnings* exceed the *Burials*, yet in *London* they do not. The general Reaſon of this muſt be, that in *London* the proportion of thoſe ſubject to die unto thoſe capable of breeding is greater then

in

in the Countrey; That is, let there be an hundred Perſons in *London*, and as many in the Country; we ſay, that if there be 60 of them Breeders in *London*, there are more then 60 in the Country, or elſe we muſt ſay, that *London* is more unhealthfull, or that it enclines men and women more to Barrenneſs, then the Country, which by comparing the Burials, and Chriſtnings of *Hackney*, *Newington*, and the other Country-Pariſhes, with the moſt *Smoaky*, and *Stinking* parts of the City, is ſcarce diſcernable in any conſiderable degree.

6. Now that the Breeders in *London* are proportionally fewer then thoſe in the Country ariſes from theſe reaſons, *viz.*

1. All that have buſineſs to the Court of the King, or to the Courts of Juſtice, and all Country-men coming up to bring Proviſions to the City, or to buy Foreign Commodities, Manufactures, and Rarities, do for the moſt part leave their Wives in the Country.

2. Perſons coming to live in *London* out of curioſity, and pleaſure, as alſo ſuch as would retire, and live privately, do the ſame, if they have any.

3. Such, as come up to be cured of Diſeaſes, do ſcarce uſe their Wives *pro tempore*.

4. That many Apprentices of *London*, who are bound ſeven, or nine years from Marriage, do often ſtay longer voluntarily.

5. That many Sea-men of *London* leave their Wives behind them, who are more ſubject to die in the abſence of their Husbands, then to breed either without men, or with the uſe of many promiſcuouſly.

6. As for unhealthineſs it may well be ſuppoſed, that

that although ſeaſoned Bodies may, and do live near as long in *London*, as elſewhere, yet new-comers, and Children do not, for the *Smoaks*, *Stinks*, and cloſe *Air* are leſs healthfull then that of the Country; otherwiſe why do ſickly Perſons remove into the Country *Air*? And why are there more old men in Countries then in *London*, *per rata?* And although the difference in *Hackney*, and *Newington*, abovementioned, be not very notorious, yet the reaſon may be their vicinity to *London*, and that the Inhabitants are moſt ſuch, whoſe bodies have firſt been impaired with the *London Air*, before they withdraw thither.

7. As to the cauſes of Barrenneſs in *London*, I ſay, that although there ſhould be none extraordinary in the Native *Air* of the place, yet the intemperance in feeding, and eſpecially the Adulteries and Fornications, ſuppoſed more frequent in *London* then elſewhere, do certainly hinder breeding. For a Woman, admitting 10 Men, is ſo far from having ten times as many Children, that ſhe hath none at all.

8. Add to this, that the minds of men in *London* are more thoughtfull and full of buſineſs then in the Country, where their work is *corporal* Labour, and Exercizes. All which promote Breedings, whereas *Anxieties* of the minde hinder it.

CHAP.

CHHP. VIII.

Of the difference between the numbers of Males, and Females.

THe next Obſervation is, That there be more *Males* then *Females*.

There have been Buried from the year 1628, to the year 1662, *excluſivè*, 209436 *Males*, and but 190474 *Females:* but it will be objected, that in *London* it may indeed be ſo, though otherwiſe elſewhere; becauſe *London* is the great Stage and Shop of buſineſs, wherein the *Maſculine Sex* bears the greateſt part. But we Anſwer, That there have been alſo *Chriſtned* within the ſame time, 139782 *Males*, and but 130866 *Females*, and that the Country Accompts are conſonant enough to thoſe of *London* upon this matter.

2. What the Cauſes hereof are, we ſhall not trouble our ſelves to conjecture, as in other Caſes, onely we ſhall deſire, that Travellers would enquire whether it be the ſame in other Countries.

3. We ſhould have given an Accompt, how in every Age theſe proportions change here, but that we have Bills of diſtinction but for 32 years, ſo that we ſhall paſs from hence to ſome inferences from this Concluſion; as firſt,

1. That *Chriſtian Religion*, prohibiting *Polygamy*, is more agreeable to the *Law of Nature*, that is, the *Law of God*, then *Mahumetiſm*, and others, that allow

allow it; for one man his having many women, or wives by Law, ſignifies nothing, unleſs there were many women to one man in Nature alſo.

II. The obvious Objection hereunto is, That one *Horſe*, *Bull*, or *Ram*, having each of them many *Females*, do promote increaſe. To which I Anſwer, That although perhaps there be naturally, even of theſe *ſpecies*, more *Males* then *Females*, yet *artificially*, that is, by making *Geldings*, *Oxen*, and *Weathers*, there are fewer. From whence it will follow, That when by experience it is found how many *Ews* (ſuppoſe twenty) one *Ram* will ſerve, we may know what proportion of *male-Lambs* to caſtrate, or geld, *viz.* nineteen, or thereabouts: for if you emaſculate fewer, *viz.* but ten, you ſhall by promiſcuous copulation of each of thoſe ten with two *Females*, (in ſuch as admit the *Male* after conception) hinder the increaſe ſo far, as the admittance of two *Males* will do it: but, if you caſtrate none at all, it is highly probable, that every of the twenty *Males* copulating with every of the twenty *Females*, there will be little, or no conception in any of them all.

III. And this I take to be the trueſt Reaſon, why *Foxes*, *Wolves*, and other *Vermin Animals* that are not gelt, increaſe not faſter then *Sheep*, when as ſo many thouſands of theſe are daily Butchered, and very few of the other die otherwiſe then of themſelves.

4. We have hitherto ſaid there are more *Males*, then *Females*; we ſay next, That the one exceed the other by about a thirteenth part; ſo that although more men die violent deaths then women, that is, more are *ſlain* in Wars, *killed* by miſchance, *drowned* at

at *Sea*, and die by the *Hand of Juſtice*. Moreover, more men go to *Colonies*, and travel into foreign parts, then women. And laſtly, more remain unmarried, then of women, as *Fellows* of *Colleges*, and *Apprentiſes*, above eighteen, *&c.* yet the ſaid thirteenth part difference bringeth the buſineſs but to ſuch a paſs, that every woman may have an Huſband, without the allowance of *Polygamy*.

5. Moreover, although a man be *Prolifique* fourty years, and a woman but five and twenty, which makes the *Males* to be as 560 to 325 *Females*, yet the cauſes above named, and the later marriage of the men, reduce all to an equality.

6. It appearing, that there were fourteen men to thirteen women, and that they die in the ſame proportion alſo, yet I have heard *Phyſicians* ſay, that they have two women Patients to one man, which Aſſertion ſeems very likely; for that women have either the *Green-ſickneß*, or other like Diſtempers, are ſick of *Breedings*, *Abortions*, *Child-bearing*, *Sore-breaſts*, *Whites*, *Obſtructions*, *Fits of the Mother*, and the like.

7. Now, from this it ſhould follow, that more women ſhould die then men, if the number of *Burials* anſwered in proportion to that of Sickneſſes: but this muſt be ſalved, either by the alledging, that the *Phyſicians* cure thoſe Sickneſſes, ſo as few more die, then if none were ſick; or elſe that men, being more intemperate then women, die as much by reaſon of their Vices, as the women do by the Infirmitie of their *Sex*, and conſequently, more *Males* being born, then *Females*, more alſo die.

8. In the year 1642 many *Males* went out of

London into the Wars then beginning, in ſo much, as I expected in the ſucceeding year, 1643, to have found the *Burials* of *Females* to have exceeded thoſe of *Males*, but no alteration appeared; for as much, as I ſuppoſe, Trading continuing the ſame in *London*, all thoſe who loſt their *Apprentices* had others out of the Countrey; and if any left their Trades, or Shops, that others forthwith ſucceeded them: for if employment for hands remain the ſame, no doubt but the number of them could not long continue in diſproportion.

9. Another pregnant Argument to the ſame purpoſe (which hath already been touched on) is, That although in the very year of the *Plague*, the *Chriſtnings* decreaſed, by the dying and flying of *Teeming-women*, yet the very next year after, they increaſed ſomewhat, but the ſecond after, to as full a number as in the ſecond year before the ſaid *Plague*: for I ſay again, if there be encouragement for an hundred in *London*, that is, a Way how an hundred may live better then in the Countrey, and if there be void houſing there to receive them, the evacuating of a $\frac{1}{4}$th, or $\frac{1}{3}$ part of that number, muſt ſoon be ſupplied out of the Countrey; ſo as, the great *Plague* doth not leſſen the Inhabitants of the City, but of the Countrey, who in a ſhort time remove themſelves from hence thither, ſo long, untill the City for want of receit and encouragement, regurgitates and ſends them back.

10. From the difference between *Males* and *Females*, we ſee the reaſon of making *Eunuchs* in thoſe places where *Polygamy* is allowed, the latter being uſeleſs

uſeleſs as to multiplication, without the former, as was ſaid before in the caſe of *Sheep* and other *Animals*, uſually gelt in theſe Countries.

11. By conſequence, this practiſe of *Caſtracon* ſerves as well to promote increaſe as to meliorate the Fleſh of thoſe Beaſts that ſuffer it. For that Operation is equally practiſed upon *Horſes* which are not uſed for Food, as upon thoſe that are.

12. In *Popiſh* Countries where *Polygamy* is forbidden, if a greater number of *Males* oblige themſelves to *Cælibate* then the natural overplus or difference between them and *Females* amounts unto; then multiplication is hindred; for if there be eight Men to ten Women, all of which eight men are married to eight of the ten Women, then the other two bear no Children, as either admitting no Man at all, or elſe admitting Men as Whores (that is more then one) which commonly procreates no more then if none at all had been uſed: or elſe ſuch unlawfull Copulations beget Conceptions but to fruſtrate them by procured Abortions or ſecret Murthers, all which returns to the ſame reckoning. Now, if the ſame proportion of women oblige themſelves to a ſingle life likewiſe, then ſuch obligation makes no change in this matter of encreaſe.

13. From what hath been ſaid, appears the reaſon why the Law is, and ought to be ſo ſtrict againſt Fornications and Adulteries, for if there were univerſal liberty, the Increaſe of Man-kind would be but like that of *Foxes* at beſt.

14. Now foraſmuch as Princes are not only Powerfull but Rich, according to the number of

their People (Hands being the Father, as Lands are the Mother, and Womb of Wealth) it is no wonder why ſtates by encouraging Marriage, and hindering Licentiouſneſs, advance their own Intereſt, as well as preſerve the Laws of God from contempt, and Violation.

15. It is a Bleſſing to Man-kind, that by this overplus of *Males* there is this natural Bar to *Polygamy*: for in ſuch a ſtate Women could not live in that parity, and equality of expence with their Husbands, as now, and here they do.

16. The reaſon whereof is, not, that the Husband cannot maintain as ſplendidly three, as one; for he might, having three Wives, live himſelf upon a quarter of his Income, that is in a parity with all three, aswell as, having but one, live in the ſame parity at half with her alone: but rather, becauſe that to keep them all quiet with each other, and himſelf, he muſt keep them all in greater aw, and leſs ſplendor, which power he having will probably uſe it to keep them all as low, as he pleaſes, and at no more coſt then makes for his own pleaſure; the pooreſt Subjects (ſuch as this plurality of Wives muſt be) being moſt eaſily governed.

CHAP.

CHAP. IX.

Of the growth of the City.

1. IN the year 1593 there died in the ninety ſeven Pariſhes within the walls, and the ſixteen without the walls (beſides 421 of the *Plague*) 3508. And the next year 3478, beſides 29 of the *Plague*: in both years 6986. Twenty years after, there died in the ſame ninety ſeven, and ſixteen Pariſhes, 12110, *viz.* *Anno* 1614, 5873; and *Anno* 1615, 6237: ſo as the ſaid Pariſhes are increaſed, in the ſaid time, from ſeven to twelve, or very near thereabouts.

2. Moreover, the *Burials* within the like ſpace of he next twenty years, *viz.* *Anno* 1634, and 1635, vere 15625, *viz.* as about twenty four to thirty one: he which laſt of the three numbers, 15625, is much nore then double to the firſt 6986, *viz.* the ſaid Pariſhes have in fourty years increaſed from twenty three to fifty two.

3. Where is to be noted, That although we were neceſſitated to compound the ſaid ninety ſeven with the ſixteen Pariſhes, yet the ſixteen Pariſhes have increaſed faſter then the ninety ſeven. For, in the year 1620, there died within the walls 2726, and in 1660 there died but 3098 (both years being clear of the *Plague*) ſo as in this fourty years the ſaid ninety ſeven Pariſhes have increaſed but from nine to ten, or thereabouts, becauſe the houſing of the ſaid

ſaid ninety ſeven Pariſhes could be no otherwiſe increaſed, then by turning great Houſes into Tenements, and building upon a few Gardens.

4. In the year 1604, there died in the ninety ſeven Pariſhes 1518, and of the *Plague* 280. And in the year 1660, 3098, and none of the *Plague*, ſo as in fifty ſix years the ſaid Pariſhes have doubled: Where note, that forasmuch as the ſaid year 1604 was the very next year after the great *Plague*, 1603 (when the City was not yet re-peopled) we ſhall rather make the compariſon between 2014, which died *Anno* 1605, and 3431 *Anno* 1659, chooſing rather from hence to aſſert, that the ſaid ninety ſeven, and ſixteen Pariſhes encreaſed from twenty to thirty four, or from ten to ſeventeen in fifty four years, then from one to two in fifty ſix, as in the laſt aforegoing *Paragraph* is ſet down.

5. *Anno* 1605, there died in the ſixteen out-Pariſhes 2974, and *Anno* 1659, 6988, ſo as in the fifty four years, the ſaid Pariſhes have encreaſed from three to ſeven.

6. *Anno* 1605 there died in the eight out-pariſhes, 960, *Anno* 1659, there died in the ſame ſcope of Ground, although called now ten Pariſhes (the *Savoy*, and *Covent-Garden* being added) 4301, ſo as the ſaid Pariſhes have encreaſed within the ſaid fifty four years, more then from one to four.

7. Moreover, there was Buried in all, *Anno* 1605, 5948, and *Anno* 1659 14720, *viz.* about two to five.

8. Having ſet down the proportions, wherein we find the ſaid three great Diviſions of the whole Pyle, call'd *London*, to have encreaſed; we come next to ſhew what

what particuler Pariſhes have had the moſt remarkable ſhare in theſe Augmentations, *viz.* of the ninty ſeven Pariſhes within the Walls the Increaſe is not very diſcernable, but where great houſes formerly belonging to Noblemen before they built others neer *White-hall*, have been turned into Tenements, upon which Accompt *Alhallows on the wall* is encreaſed, by the converſion of the Marqueſs of *Wincheſters* houſe, lately the *Spaniſh* Ambaſſadors, into a New ſtreet, the like of Alderman *Freeman*, and *La Motte* neer the *Exchange*, the like of the Earl of *Arundells* in *Loathbury*, the like of the Biſhop of *London*'s Palace, the Dean of *Paul*'s, and the Lord *River*'s houſe, now in hand, as alſo of the *Dukes-Place*, and others heretofore.

9. Of the ſixteen Pariſhes next without the Walls, Saint *Gile*'s *Criplegate* hath been moſt inlarged, next to that, Saint *Olave*'s *Southwark*, then Saint *Andrews Holborn*, then *White-Chappel*, the difference in the reſt not being conſiderable.

10. Of the out Pariſhes now called ten, formerly nine, and before that eight, Saint *Gile*'s, and Saint *Martins in the fields*, are moſt encreaſed, notwith ſtanding Saint *Pauls Covent-Garden* was taken out of them both.

11. The general obſervation which ariſes from hence is, That the City of *London* gradually removes *Weſtward*, and did not the *Royal Exchange*, and *London-Bridg* ſtay the Trade, it would remove much faſter, for *Leaden-Hall-ſtreet*, *Biſhops-gate*, and part of *Fan-church-ſtreet*, have loſt their ancient Trade, *Grace-Church-ſtreet* indeed keeping it ſelf yet entire, by reaſon

reaſon of its conjunction with, and relation to *London-Bridg.*

12. Again, *Canning-ſtreet*, and *Watlin-ſtreet* have loſt their Trade of *Woollen-Drapery* to *Paul's Church-Yard*, *Ludgate-hill*, and *Fleet-ſtreet*; the *Mercery* is gone from out of *Lombard-ſtreet*, and *Cheapſide*, into *Pater-Noſter-Row*, and *Fleet-ſtreet*.

13. The reaſons whereof are, that the King's Court (in old times frequently kept in the City) is now always at *Weſtminſter*. Secondly, the uſe of Coaches, whereunto the narrow ſtreets of the old City are unfit, hath cauſed the building of thoſe broader ſtreets in *Covent-Garden*, &c.

14. Thirdly, where the *Conſumption* of Commodity is, *viz.* among the Gentry, the vendors of the ſame muſt ſeat themſelves.

15. Fourthly, the cramming up of the voyd ſpaces, and gardens within the Walls, with houſes, to the prejudice of *Light*, and *Air*, have made men Build new ones, where they leſs fear thoſe inconveniencies.

16. Conformity in Building to other civil Nations hath diſpoſed us to let our old Wooden dark houſes fall to decay, and to build new ones, whereby to anſwer all the ends above-mentioned.

17. Where note, that when *Lud-gate* was the onely *Weſtern* Gate of the City, little Building was *Weſtward* thereof. But when *Holborn* began to encreaſe *New-gate* was made. But now both theſe Gates are not ſufficient for the Communication between the Walled City, and its enlarged *Weſtern* Suburbs, as dayly appears by the intolerable ſtops and embareſſes of Coaches near both theſe Gates, eſpecially *Lud-gate*.

CHAP.

Chap. X.

Of the Inequality of Pariſhes.

1. BEfore we paſs from hence, we ſhall offer to conſideration the inequality of Pariſhes in, and about *London*, evident in the proportion of their reſpective *Burials*; for in the ſame year were Buried in *Cripple-gate-Pariſh* 1191, that but twelve died in *Trinity-Minories*, St. *Saviour's Southwark*, and *Botolph's Biſhop-gate*, being of the middle ſize, as burying five and 600 *per Annum*; ſo that *Cripple-gate* is an hundred times as big as the *Minories*, and 200 times as big as St. *John the Euangeliſt's*, *Mary-Cole-church*, *Bennet's Grace-church*, *Matthew-Friday-ſtreet*, and ſome others within the City.

2. Hence may ariſe this Queſtion, Wherefore ſhould this inequality be continued? If it be Anſwered, Becauſe that *Paſtours* of all ſorts, and ſizes of Abilities, may have Benefices, each man according to his merit: we Anſwer, That a two hundredth part of the beſt *Parſon's* learning is ſcarce enough for a *Sexton*. But beſides, there ſeems no reaſon of any differences at all, it being as much Science to ſave one ſingle ſoul, as one thouſand.

3. We encline therefore to think the Pariſhes ſhould be equal, or near, becauſe, in the *Reformed Religions*, the principal uſe of *Churches* is to Preach in: now the bigneſs of ſuch a *Church* ought to be no greater, then that, unto which the voice of a *Preacher*

of middling Lungs will eafily extend; I ſay, eaſily, becauſe they ſpeak an hour, or more together.

4. The uſe of ſuch large *Churches*, as *Paul's*, is now wholly loſt, we having no need of ſaying perhaps fifty *Maſſes* all at one time, nor of making thoſe grand *Proceſſions* frequent in the *Romiſh Church*; nor is the ſhape of our *Cathedral* proper at all for our *Preaching Auditories*, but rather the Figure of an *Amphi-Theatre* with Galleries, gradually over-looking each other; for unto this Condition the Pariſh-Churches of *London* are driving apace, as appears by the many Galleries every day built in them.

5. Moreover, if Pariſhes were brought to the ſize of *Colman-ſtreet*, *Alhallows-Barking*, *Chriſt-Church*, *Black-Friers*, &c. in each whereof die between 100 and 150, *per Annum*, then an hundred Pariſhes would be a fit, and equal Diviſion of this great charge, and all the *Miniſters* (ſome whereof have now ſcarce fourty pounds *per Annum*) might obtain a ſubſiſtance.

6. And laſtly, The *Church-Wardens*, and *Over-ſeers* of the *Poor* might finde it poſſible to diſcharge their Duties, whereas now in the greater out-Pariſhes many of the poorer Pariſhioners through neglect do periſh, and many vicious perſons get liberty to live as they pleaſe, for want of ſome heedfull Eye to overlook them.

CHAP.

CHAP. XI.

Of the number of Inhabitants.

1. I Have been ſeveral times in company with men of great experience in this City, and have heard them talk ſeldom under Millions of *People* to be in *London*, all which I was apt enough to believe, untill, on a certain day, one of eminent Reputation was upon occaſion aſſerting, that there was in the year 1661 two Millions of People more then *Anno* 1625, before the great *Plague*; I muſt confeſs, that, untill this provocation, I had been frighted with that miſ-underſtood Example of *David*, from attempting any computation of the People of this populous place; but hereupon I both examined the lawfulneſs of making ſuch enquiries, and, being ſatisfied thereof, went about the work it ſelf in this manner: *viz.*

2. Firſt, I imagined, That, if the Conjecture of the worthy Perſon afore-mentioned had any truth in it, there muſt needs be about ſix, or ſeven Millions of People in *London* now; but repairing to my Bills I found, that not above 15000 *per Annum* were buried, and conſequently, that not above one in four hundred muſt die *per Annum*, if the Total were but ſix Millions.

3. Next conſidering, That it is eſteemed an even Lay, whether any man lives ten years longer, I ſuppoſed it was the ſame, that one of any 10 might die within one year. But when I conſidered, that of the 15000

afore-mentioned about 5000 were *Abortive*, and *Stilborn*, or died of *Teeth*, *Convulsion*, *Rickets*, or as *Infants*, and *Chrysoms*, and *Aged*. I concluded, that of men, and women, between ten and sixty, there scarce died 10000 *per Annum* in *London*, which number being multiplied by 10, there must be but 100000 in all, that is not the $\frac{1}{60}$ part of what the *Alderman* imagined. These were but sudden thoughts on both sides, and both far from truth, I thereupon endeavoured to get a little nearer, thus: *viz.*

4. I considered, that the number of *Child-bearing women* might be about double to the *Births*: forasmuch as such women, one with another, have scarce more then one Childe in two years. The number of *Births* I found, by those years, wherein the *Registries* were well kept, to have been somewhat less then the *Burials*. The *Burials* in these late years at a *Medium* are about 13000, and consequently the *Christnings* not above 12000. I therefore esteemed the number of *Teeming women* to be 24000: then I imagined, that there might be twice as many Families, as of such women; for that there might be twice as many women *Aged* between 16 and 76, as between 16 and 40, or between 20 and 44; and that there were about eight Persons in a Family, one with another, *viz.* the Man, and his Wife, three Children, and three Servants, or Lodgers: now 8 times 48000 makes 384000.

5. Secondly, I finde by telling the number of Families in some Parishes within the walls, that 3 out of 11 families *per an.* have died: wherefore, 13000 having died in the whole, it should follow, there were 48000 Families according to the last mentioned Acccompt.

6. Thirdly,

6. Thirdly, the Accompt, which I made of the *Trayned-Bands*, and *Auxiliary* Souldiers, doth enough justify this Accompt.

7. And lastly I took the Map of *London* set out in the year 1658 by *Richard Newcourt*, drawn by a scale of Yards. Now I guessed that in 100 yards square there might be about 54 Families, supposing every house to be 20 foot in the front: for on two sides of the said square there will be 100 yards of housing in each, and in the two other sides 80 each; in all 360 yards: that is 54 Families in each square, of which there are 220 within the Walls, making in all 11880 Families within the Walls. But forasmuch as there dy within the Walls about 3200 *per Annum*, and in the whole about 13000; it follows, that the housing within the Walls is $\frac{1}{4}$ part of the whole, and consequently, that there are 47520 Families in, and about *London*, which agrees well enough with all my former computations: the worst whereof doth sufficiently demonstrate, that there are no Millions of People in *London*, which nevertheless most men do believe, as they do, that there be three Women for one Man, whereas there are fourteen Men for thirteen Women, as else where hath been said.

8. We have (though perhaps too much at Random) determined the number of the inhabitants of *London* to be about 384000: the which being granted, we assert, that 199112 are *Males*, and 184886 *Females*.

9. Whereas we have found, that of 100 quick Conceptions about 36 of them die before they be six years old, and that perhaps but one surviveth

76,

76, we, having ſeven *Decads* between ſix and 76, we ſought ſix mean proportional numbers between 64, the remainder, living at ſix years, and the one, which ſurvives 76, and finde, that the numbers following are practically near enough to the truth; for men do not die in exact Proportions, nor in Fractions: from whence ariſes this Table following.

Viz. of 100 there dies	The fourth ——— 6
within the firſt ſix years 36	The next ——— 4
The next ten years, or	The next ——— 3
Decad ——— 24	The next ——— 2
The ſecond *Decad* — 15	The next ——— 1
The third *Decad* — 09	

10. From whence it follows, that of the ſaid 100 conceived there remains alive at ſix years end 64.

At Sixteen years end 40	At Fifty ſix ——— 6
At Twenty ſix ——— 25	At Sixty ſix ——— 3
At Tirty ſix ——— 16	At Seventy ſix ——— 1
At Fourty ſix ——— 10	At Eighty ——— 0

11. It follows alſo, that of all, which have been conceived, there are now alive 40 *per Cent.* above ſixteen years old, 25 above twenty ſix years old, *& ſic deinceps*, as in the above Table: there are therefore of Aged between 16, and 56, the number of 40, leſs by ſix, *viz.* 34; of between 26, and 66, the number of 25 leſs by three, *viz.* 22: *& ſic deniceps*.

Wherefore, ſuppoſing there be 199112 *Males*, and the number between 16, and 56, being 34. It follows, there are 34 *per Cent.* of all thoſe *Males* fighting Men in *London*, that is 67694, *viz.* near 70000: the truth whereof I leave to examination, only the $\frac{1}{5}$. of 67694, *viz.* 13539. it to be added for *Weſtminſter*, *Stepney*,

ney, *Lambeth*, and the other distant Parishes, making in all 81233 fighting Men.

12. The next enquiry shall be, In how long time the City of *London* shall, by the ordinary proportion of Breeding, and Dying, double its breeding People. I answer in about seven years, and (*Plagues* considered) eight. Wherefore since there be 24000 pair of Breeders, that is $\frac{1}{8}$. of the whole, it follows, that in eight times eight years the whole People of the City shall double without the access of Foreigners: the which contradicts not our Accompt of its growing from two to five in 56 years with such accesses.

13. According to this proportion, one couple *viz*. *Adam* and *Eve*, doubling themselves every 64 years of the 5610 years, which is the *age* of the World according to the *Scriptures*, shall produce far more People, then are now in it. Wherefore the World is not above 100 thousand years, old as some vainly Imagine, nor above what the *Scripture* makes it.

CHAP. XII.

Of the Country Bills.

WE have, for the present, done with our Observations upon the Accompts of *Burials*, and *Christnings*, in, and about *London*; we shall next present the Accompts of both *Burials*, *Christnings*, and also of *Weddings* in the Country, having to that purpose inserted Tables of 90 years for a certain Parish in *Hampshire*, being a place neither famous for *Longevity*, and

and *Healthfulneſs*, nor for the contrary. Upon which Tables we obſerve,

1. That every *Wedding*, one with another, produces four Children, and conſequently, that that is the proportion of Children, which any Marriagable man, or woman may be preſumed ſhall have. For, though a man may be Married more then once, yet, being once Married, he may die without any Iſſue at all.

2. That in this Pariſh there were born 15 *Females* for 16 *Males*, whereas in *London* there were 13 for 14, which ſhews, that *London* is ſomewhat more apt to produce *Males*, then the country. And it is poſſible, that in ſome other places there are more *Females* born, then *Males*, which, upon this variation of proportion, I again recommend to the examination of the curious.

3. That in the ſaid whole 90 years the *Burials* of the *Males* and *Females* were exactly equal, and that in ſeveral *Decads* they differed not $\frac{1}{100}$ part, that in one of the two *Decads*, wherein the difference was very notorious, there were Buried of *Males* 337, and of *Females* but 284, *viz.* 53 difference, and in the other there died contrariwiſe 338 *Males*, and 386 *Females*, differing 46.

4. There are alſo *Decads*, where the Birth of *Males* and *Females* differ very much, *viz.* about 60.

5. That in the ſaid 90 years there have been born more, then buried in the ſaid Pariſh, (the which both 90 years ago, and alſo now, conſiſted of about 2700 Souls) but 1059, *viz.* not 12 *per Annum*, one year with another.

6. That theſe 1059 have in all probability contributed to the increaſe of *London*; ſince, as was ſaid even now,

now, it neither appears by the *Burials*, *Chriſtnings*, or by the built of new-houſing, that the ſaid Pariſh is more populous now, then 90 years ago, by above two or 300 ſouls. Now, if all other places ſend about $\frac{1}{30}$ of their encreaſe, *viz.* about one out of 900 of their Inhabitants *Annually* to *London*, and that there be 14 times as many people in *England*, as there be in *London*, (for which we have given ſome reaſons) then *London* encreaſes by ſuch *Advenæ* every year above 6000: the which will make the Accompt of *Burials* to ſwell about 200 *per Annum*, and will anſwer the encreaſes. We obſerve it is clear, that the ſaid Pariſh is encreaſed about 300, and it is probable, that three or four hundred more went to *London*, and it is known, That about 400 went to *New-England*, the *Caribe-Iſlands*, and *New-found-Land*, within theſe laſt fourty years.

7. According to the *Medium* of the ſaid whole 90 years, there have been five *Chriſtnings* for four *Burials*, although in ſome ſingle *Years*, and *Decads*, there have been three to two, although ſometimes (though more rarely) the *Burials* have exceeded the *Births*, as in the caſe of *Epidemical* Diſeaſes.

8. Our former Obſervation, That healthfull years are alſo the moſt fruitfull, is much confirmed by our Country Accompts; for, 70 being our Standard for *Births*, and 58 for *Burials*, you ſhall finde, that where fewer then 58 died, more then 70 were born. Having given you a few inſtances thereof, I ſhall remit you to the Tables for the general proof of this Aſſertion. *Viz. Anno* 1633. when 104 were born, there died but 29. Now, in none of the whole 90 years more were born then 103, and but in one, fewer then 29 died, *viz.*

28 *Anno* 1658. Again *Anno* 1568, when 93 were born, but 42 died. *Anno* 1584, when 90 were born, but 41 died. *Anno* 1650, when 86 were born, but 52 died. So that by how much more are born, by ſo much (as it were) the fewer die. For when 103 were born, but 29 died: but when but 86 were born, then 52 died.

On the other ſide *Anno* 1638, when 156 died *per Annum*, which was the greateſt year of *Mortality*, then leſs then the meer Standard 70, *viz.* but 66 were born. Again *Anno* 1644, when 137 died, but 59 were born. *Anno* 1597, when 117 died, but 48 were born. And *Anno* 1583, when 87 died, but 59 were born.

A little Irregularity may be found herein, as that *Anno* 1612, when 116 died (*viz.* a number double to our Standard 58 yet) 87 (*viz.* 17 about the Standard 70) were born. And that when 89 died 075 were born: but theſe differences are not ſo great, nor ſo often, as to evert our Rule, which beſides the Authority of theſe Accompts is probable in it ſelf.

9. Of all the ſaid 90 years the year 1638 was the moſt *Mortal*, I therefore enquired whether the *Plague* was then in that Pariſh, and having received good ſatisfaction that it was not (which I the rather believe, becauſe, that the *Plague* was not then conſiderable at *London*) but that it was a Malignant *Fever* raging ſo fiercely about *Harveſt*, that there appeared ſcarce hands enough to take in the Corn: which argues, conſidering there were 2700 Pariſhioners, that ſeven might be ſick for one that died: whereas of the *Plague* more die then recover. Laſtly, theſe People lay longer

er ſick then is uſual in the *Plague*, nor was there any mention of *Sores*, *Swellings*, *blew-Tokens*, &c. among them. It follows, that the proportion between the *greateſt* and the *leaſt Mortalities* in the Country are far greater then at *London*. Forasmuch as the greateſt 156 is above *quintuple* unto 28 the leaſt, whereas in *London* (the *Plague* excepted, as here it hath been) the number of Burials upon other Accompts within no *Decad* of years hath been double, whereas in the Country it hath been *quintuple* not onely within the whole 90 years, but alſo within the ſame *Decad*: for *Anno* 1633. there died but 29, and *Anno* 1638 the above-mentioned number of 156. Moreover, as in *London*, in no *Decad*, the Burials of one year are double to thoſe of another: ſo in the Country they are ſeldom not more then ſo. As by this Table appears,

Decad	greateſt *number of Burials*	leaſt *number of Burials*
1	66	34
2	87	39
3	117	38
4	53	30
5	116	51
6	89	50
7	156	35
8	137	46
9	80	28

Which ſhews, that the opener, and freer *Airs* are moſt ſubject both to the good and bad Impreſſions, and that the *Fumes*, *Steams*, and *Stenches* of *London* do ſo medicate, and impregnate the *Air* about it, that it becomes capable of little more, as if the ſaid *Fumes* riſing out of *London* met with, oppoſed, and juſtled backwards the Influences falling from above, or reſiſted the Incurſion of the Country-*Airs*.

10. In the laſt *Paragraph* we ſaid, that the Burials in the Country were ſometimes *quintuple* to one another, but of the Chriſtnings we affirm, that within the ſame *Decad* they are ſeldome double, as appears by this Table, *viz*.

Decad	greateſt *number of Burials*	leaſt *number of Burials*
1	70	50
2	90	45
3	71	52
4	93	60
5	87	61
6	85	63
7	103	66
8	87	62
9	86	52

Now, although the diſproportions of Births be not ſo great as that of *Burials*, yet theſe diſproportions are far

far greater then at *London*: for let it be ſhewn in any of the *London* Bills, that within two years the *Chriſtnings* have decreaſed ½. or increaſed double, as they did *Anno* 1584, when 90 were born, and *An.* 1586, wherein were but 45: or to riſe from 52, as *Anno* 1593, to 71, as in the next year 1594. Now, theſe diſproportions both in Births, and Burials, confirm what hath been before Aſſerted, that *Healthfulneſs*, and *Fruitfulneſs* go together, as they would not, were there not diſproportions in both, although proportional.

11. By the Standard of Burials in this Pariſh, I thought to have computed the number of Inhabitants in it, *viz.* by multiplying 58 by 4, which made the *Product* 232, the number of Families. Hereupon I wondered, that a Pariſh containing a large Market-Town, and 12 Miles compaſs, ſhould have but 232 Houſes, I then multiplied 232 by 8, the *Product* whereof was 1856, thereby hoping to have had the number of the Inhabitants, as I had for *London*; but when upon enquiry I found there had been 2100 Communicants in that Pariſh in the time of a *Miniſter*, who forced too many into that Ordinance, and that 1500 was the ordinary number of Communicants in all times, I found alſo, that for as much as there were near as many under 16 years old, as there are above, *viz.* Communicants, I concluded, that there muſt be about 27, or 2800 Souls in that Pariſh: from whence it follows, that little more then one of 50 dies in the Country, whereas in *London*, it ſeems manifeſt, that about one in 32 dies, over and above what dies of the *Plague*.

12. It follows therefore from hence, what I more faintly

ſaintly aſſerted in the former Chapter, that the Country is more *healthfull*, then the City, That is to ſay, although men die more regularly, and leſs *per Saltum* in *London*, then in the Country, yet, upon the whole matter, there die fewer *per Ratu*; ſo as the Fumes, Steams, and Stenches above-mentioned, although they make the Air of *London* more equal, yet not more *Healthfull*.

13. When I conſider, That in the Country ſeventy are Born for fifty eight Buried, and that before the year 1600 the like happened in *London*, I conſidered, whether a City, as it becomes more populous, doth not, for that very cauſe, become more *unhealthfull*, I inclined to believe, that *London* now is more *unhealthfull*, then heretofore, partly for that it is more populous, but chiefly, becauſe I have heard, that 60 years ago few *Sea-Coals* were burnt in *London*, which now are univerſally uſed. For I have heard, that *Newcaſtle* is more *unhealthfull* then other places, and that many People cannot at all endure the ſmoak of *London*, not onely for its unpleaſantneſs, but for the ſuffocations which it cauſes.

14. Suppoſe, that *Anno* 1569 there were 2400 ſouls in that Pariſh, and that they increaſed by the *Births* 70, exceeding the *Burials* 58, it will follow, that the ſaid 2400 cannot double under 200. Now, if *London* be leſs *healthfull* then the Country, as certainly it is, the *Plague* being reckoned in, it follows, that *London* muſt be doubling it ſelf by generation in much above 200: but if it hath encreaſed from 2 to 5 in 54, as aforeſaid, the ſame muſt be by reaſon of tranſplantation out of the Country.

The

The Concluſion.

IT may be now asked, to what purpoſe tends all this laborious buzzling, and groping? To know,

1. The number of the People?
2. How many *Males*, and *Females?*
3. How many Married, and ſingle?
4. How many *Teeming* Women?
5. How many of every *Septenary*, or *Decad* of years in *age*?
6. How many *Fighting* Men?
7. How much *London* is, and by what ſteps it hath increaſed?
8. In what time the houſing is repleniſhed after a *Plague*?
9. What proportion die of each general and perticular *Caſualties*?
10. What years are Fruitfull, and Mortal, and in what Spaces, and Intervals, they follow each other?
11. In what proportion Men neglect the Orders of the *Church*, and *Sects* have increaſed?
12. The diſproportion of Pariſhes?
13. Why the Burials in *London* exceed the Chriſtnings, when the contrary is viſible in the Country?

To this I might anſwer in general by ſaying, that thoſe, who cannot apprehend the reaſon of theſe Enquiries, are unfit to trouble themſelves to ask them.

2. I might anſwer by asking; Why ſo many have ſpent their times, and eſtates about the Art of making Gold? which, if it were much known, would oneſy exalt Silver into the place, which Gold now poſſeſſeth; and if it were known but to ſome one Perſon, the ſame ſingle *Adeptus* could not, nay, durſt not enjoy it, but muſt be either a Priſoner to ſome Prince, and Slave to ſome Voluptuary, or elſe skulk obſcurely up and down for his privacie, and concealment.

3. I might Anſwer; That there is much pleaſure in deducing ſo many abſtruſe, and unexpected inferences out of theſe poor deſpiſed Bills of *Mortality*; and in building upon that ground, which hath lain waſte theſe eighty years. And there is pleaſure in doing ſomething new, though never ſo little, without peſtering the World with voluminous Tranſcriptions.

4. But, I Anſwer more ſeriouſly; by complaining, That whereas the Art of Governing, and the true *Politiques*, is how to preſerve the Subject in *Peace*, and *Plenty*, that men ſtudy onely that part of it, which teacheth how to ſupplant, and over-reach one another, and how, not by fair out-running, but by tripping up each other's heels, to win the Prize.

Now, the Foundation, or Elements of this honeſt harmleſs *Policy* is to underſtand the Land, and the hands of the Territory to be governed, according to all their intrinſick, and accidental differences: as for example; It were good to know the *Geometrical* Content, Figure, and Scituation of all the

the Lands of a Kingdom, especially, according to its most natural, permanent, and conspicuous Bounds. It were good to know, how much Hay an Acre of every sort of Meadow will bear? how many Cattel the same weight of each sort of Hay will feed, and fatten? what quantity of Grain, and other Commodities the same Acre will bear in one, three, or seven years *communibus Annis*? unto what use each soil is most proper? All which particulars I call the intrinsick value: for there is also another value meerly accidental, or extrinsick, consisting of the Causes, why a parcel of Land, lying near a good Market, may be worth double to another parcel, though but of the same intrinsick goodness; which answers the Queries, why Lands in the North of *England* are worth but sixteen years purchase, and those of the West above eight and twenty. It is no less necessary to know how many People there be of each Sex, State, Age, Religion, Trade, Rank, or Degree, *&c.* by the knowledg whereof Trade, and Government may be made more certain, and Regular; for, if men knew the People as aforesaid, they might know the consumption they would make, so as Trade might not be hoped for where it is impossible. As for instance, I have heard much complaint, that Trade is not set up in some of the *South-western*, and *North-western* Parts of *Ireland*, there being so many excellent Harbours for that purpose, whereas in several of those Places I have also heard, that there are few other Inhabitants, but such as live *ex sponte creatis*, and are unfit Subjects of Trade, as neither

employing others, nor working themſelves.

Moreover, if all theſe things were clearly, and truly known (which I have but gueſſed at) it would appear, how ſmall a part of the People work upon neceſſary Labours, and Callings, *viz.* how many Women, and Children do juſt nothing, onely learning to ſpend what others get? how many are meer Voluptuaries, and as it were meer Gameſters by Trade? how many live by puzling poor people with unintelligible Notions in Divinity, and Philoſophie? how many by perſwading credulous, delicate, and Litigious Perſons, that their Bodies, or Eſtates are out of Tune, and in danger? how many by fighting as Souldiers? how many by Miniſteries of Vice, and Sin? how many by Trades of meer Pleaſure, or Ornaments? and how many in a way of lazie attendance, *&c.* upon others? And on the other ſide, how few are employed in raiſing, and working neceſſary food, and covering? and of the ſpeculative men, how few do truly ſtudie *Nature*, and *Things?* The more ingenious not advancing much further then to write, and ſpeak wittily about theſe matters.

I conclude, That a clear knowledge of all theſe particulars, and many more, whereat I have ſhot but at rovers, is neceſſary in order to good, certain, and eaſie Government, and even to balance Parties, and factions both in *Church* and *State*. But whether the knowledge thereof be neceſſary to many, or fit for others, then the Sovereign, and his chief Miniſters, I leave to conſideration.

The

THE TABLE O

The Years of our Lord	1647	1648	1649	1650	1651	1652	1653	1654	1655	1656	1657	1658	16
Abortive, and ſtilborn	335	329	327	351	389	381	384	433	483	419	463	467	4
Aged	916	835	889	696	780	834	864	974	743	892	869	1176	9
Ague, and Fever	1260	884	751	970	1038	1212	1282	1371	689	875	999	1800	23
Apoplex, and ſodainly	68	74	64	74	106	111	118	86	92	102	113	138	
Bleach			1	3	7	2				1			
Blaſted	4	1			6	6			4		5	5	
Bleeding	3	2	5	1	3	4	3	2	7	3	5	4	
Bloudy Flux, Scouring, and Flux	155	176	802	289	833	762	200	386	168	368	362	233	3
Burnt, and Scalded	3	6	10	5	11	8	5	7	10	5	7	4	
Calenture	1			1		2	1	1			3		
Cancer, Gangrene, and Fiſtula	26	29	31	19	31	53	36	37	73	31	24	35	
Wolf				8									
Canker, Sore-mouth, and Thruſh	66	28	54	42	68	51	53	72	44	81	19	27	
Childbed	161	106	114	117	206	213	158	192	177	201	236	225	2
Chriſomes, and Infants	1369	1254	1065	990	1237	1280	1050	1343	1089	1393	1162	1144	8
Colick, and Wind	103	71	85	82	76	102	80	101	85	120	113	179	1
Cold, and Cough							41	36	21	58	30	31	
Conſumption, and Cough	2423	2200	2388	1988	2350	2410	2286	2868	2606	3184	2757	3610	29
Convulſion	684	491	530	493	569	653	606	828	702	1027	807	841	7
Cramp			1										
Cut of the Stone		2	1	3		1	1	2	4	1	3	5	
Dropſy, and Tympany	185	434	421	508	444	556	617	704	660	706	631	931	6
Drowned	47	40	30	27	49	50	53	30	43	49	63	60	
Exceſſive drinking			2										
Executed	8	17	29	43	24	12	19	21	19	22	20	18	
Fainted in a Bath					1								
Falling-Sickneſs	3	2	2	3		3	4	1	4	3	1		
Flox, and ſmall Pox	139	400	1190	184	525	1279	139	812	1294	823	835	409	15
Found dead in the Streets	6	6	9	8	7	9	14	4	3	4	9	11	
French-Pox	18	29	15	18	21	20	20	20	29	23	25	53	
Frighted	4	4	1		3		2		1	1			
Gout	9	5	12	9	7	7	5	6	8	7	8	13	
Grief	12	13	16	7	17	14	11	17	10	13	10	12	
Hanged, and made-away themſelves	11	10	13	14	9	14	15	9	14	16	24	18	
Head-Ach		1	11	2		2	6	6	5	3	4	5	
Jaundice	57	35	39	49	41	43	57	71	61	41	46	77	1
								2	2		3	1	

1658	1659	1660	1629	1630	1631	1632	1633	1634	1635	1636	1629 1630 1631 1632	1633 1634 1635 1636	1647 1648 1649 1650	1651 1652 1653 1654	1655 1656 1657 1658	1629 1649 1659	In 20 Years.
467	421	544	499	439	410	445	500	475	507	523	1793	2005	1342	1587	1832	1247	8559
176	909	1095	579	712	661	671	704	623	794	714	2475	2814	3336	3452	3680	2377	15757
800	2303	2148	956	1091	1115	1108	953	1279	1622	2360	4418	6235	3865	4903	4363	4010	23784
138	91	67	22	36		17	24	35	26		75	85	280	421	445	177	1306
													4	9	1	1	15
5	3	8	13	8	10	13	6	4		4	54	14	5	12	14	16	99
4	7	2	5	2	5	4	4	3			16	7	11	12	19	17	65
233	346	251	449	438	352	348	278	512	346	330	1587	1466	1422	2181	1161	1597	7818
4	6	6	3	10	7	5	1	3	12	3	25	19	24	31	26	19	125
									1	3		4	2	4	3		13
35	63	52	20	14	23	28	27	30	24	30	85	112	105	157	150	114	609
												8					8
27	73	68	6	4	4	1			5	74	15	79	190	244	161	133	689
225	226	194	150	157	112	171	132	143	163	230	590	668	498	769	839	490	3364
1144	858	1123	2596	2378	2035	2268	2130	2315	2113	1895	9277	8453	4678	4910	4788	4519	32106
179	116	167	48	57					37	50	105	87	341	359	497	247	1389
31	33	24	10	58	51	55	45	54	50	57	174	207	00	77	140	43	598
3610	2982	3414	1827	1910	1713	1797	1754	1955	2080	2477	5157	8266	8999	9914	12157	7197	44487
841	742	1031	52	87	18	241	221	386	418	709	498	1734	2198	2656	3377	1324	9073
					1	0	0	0	0	0	01	00	01	0	0	1	2
5	46	48				5	1	5	2	2	5	10	6	4	13	47	38
931	646	872	235	252	279	280	266	250	329	389	1048	1734	1538	2321	2982	1302	9623
60	57	48	43	33	29	34	37	32	32	45	139	147	144	182	215	130	827
													2			2	2
18	7	18	19	13	12	18	13	13	13	13	62	52	97	76	79	55	384
														1			1
	4	5	3	10	7	7	2	5	6	8	27	21	10	8	8	9	74
409	1523	354	72	40	58	531	72	1354	293	127	701	1840	1913	2755	3361	2785	10576
11	2	6	18	33	26	6	13	8	24	24	83	69	2	34	27	29	243
53	51	31	17	12	12	12	7	17	12	22	53	48	80	81	130	83	392
		9	1			1				3	2	3	9	5	2	2	21
13	14	2	2	5	3	4	4	5	7	8	14	24	35	25	36	28	134
12	13	4	18	20	22	11	14	17	5	20	71	56	48	59	45	47	279
18	11	36	8	8	6	15		3	8	7	37	18	46	47	12	32	222
5	35	26							4	2	0	0	14	14	17	46	051
77	102	76	47	59	35	43	35	45	54	63	184	197	180	212	225	188	998
1			10	16	13	8	10	10	4	11	47	55	02	5	6	10	95

Grief	12	13	16	7	17									
Hanged, and made-away themſelves	11	10	13	14	9	14	15	9	14	16	24	18		
Head-Ach		1	11	2		2	6	6	5	3	4	5		
Jaundice	57	35	39	49	41	43	57	71	61	41	46	77		
Jaw-fall	1	1			3			2	2		3	1		
Impoſtume	75	61	65	59	80	105	79	90	92	122	80	134		
Itch		1												
Killed by ſeveral Accidents	27	57	39	94	47	45	57	58	52	43	52	47		
King's Evil	27	26	22	19	22	20	26	26	27	24	23	28		
Lethargy	3	4	2	4	4	4	3	10	9	4	6	2		
Leproſy			1									1		
Livergrown, Spleen, and Rickets	53	46	56	59	65	72	67	65	52	50	38	51		
Lunatique	12	18	6	11	7	11	9	12	6	7	13	5		
Meagrom	12	13		5	8	6	6	14	3	6	7	6		
Meaſles	5	92	3	33	33	62	8	52	11	153	15	80		
Mother	2					1	1	2	2	3		3		
Murdered	3	2	7	5	4	3	3	3	9	6	5	7		
Overlayd, and ſtarved at Nurſe	25	22	36	28	28	29	30	36	58	53	44	50		
Palſy	27	21	19	20	23	20	29	18	22	23	20	22		
Plague	3597	611	67	15	23	16	6	16	9	6	4	14		
Plague in the Guts				1		110	32		87	315	446			
Pleuriſy	30	26	13	20	23	19	17	23	10	9	17	16		
Poyſoned		3		7										
Purples, and ſpotted Fever	145	47	43	65	54	60	75	89	56	52	56	126		
Quinſy, and Sore-throat	14	11	12	17	24	20	18	9	15	13	7	10		
Rickets	150	224	216	190	260	329	229	372	347	458	317	476		
Mother, riſing of the Lights	150	92	115	120	134	138	135	178	166	212	203	228		
Rupture	16	7	7	6	7	16	7	15	11	20	19	18		
Seal'd-head	2				1				2					
Scurvy	32	20	21	21	29	43	41	44	103	71	82	82		
Smothered, and ſtifled			2											
Sores, Ulcers, broken and bruiſed	15	17	17	16	26	32	25	32	23	34	40	47		
Shot (Limbs														
Spleen	12	17					13	13		6	2	5		
Shingles														
Starved		4	8	7	1	2	1	1	3	1	3	6		
Stitch				1										
Stone, and Strangury	45	42	29	28	50	41	44	38	49	57	72	69		
Sciatica														
Stopping of the Stomach	29	29	30	33	55	67	66	107	94	145	129	277		
Surfet	217	137	136	123	104	177	178	212	128	161	137	218		
Swine-Pox	4	4	3				1	4	2	1	1	1		
Teeth, and Worms	767	597	540	598	709	905	691	1131	803	1198	878	1036		
Tiſſick	62	47												
Thruſh											57	66		
Vomiting	1	6	3	7	4	6	3	14	7	27	16	19		
Worms	147	107	105	65	85	86	53				1	2		
Wen	1		1		2	2			1					
Sodainly														

| | | |

Anno Dom.	97 Parishes	16 Parishes	Out-Parishes	Buried in all	Besides of the *Plague*	Christned
1604	1518	2097	708	4323	896	5458
1605	2014	2974	960	5948	444	6504
1606	1941	2920	935	5796	2124	6614
1607	1879	2772	1019	5670	2352	6582
1608	2391	3218	1149	6758	2262	6845
1609	2494	3610	1441	7545	4240	6388
1610	2326	3791	1369	7486	1803	6785
1611	2152	3398	1166	6716	627	7014
	16715	24780	8747	50242	14752	52190
1612	2473	3843	1462	7778	64	6986
1613	2406	3679	1418	7503	16	6846
1614	2369	3504	1494	7367	22	7208
1615	2446	3791	1613	7850	37	7682
1616	2490	3876	1697	8063	9	7985
1617	2397	4109	1774	8280	6	7747
1618	2815	4715	2066	9596	18	7735
1619	2339	3857	1804	7999	9	8127
	19735	31374	13328	64436	171	60316
1620	2726	4819	2146	9691	21	7845
1621	2438	3759	1915	8112	11	8039
1622	2811	4217	2392	8943	16	7894
1623	3591	4721	2783	11095	17	7945
1624	3385	5919	2895	12199	11	8299
1625	5143	9819	3886	18848	35417	6983
1626	2150	3286	1965	7401	134	6701
1627	2325	3400	1988	7711	4	8408
	24569	39940	19970	84000	35631	62114
1628	2412	3311	2017	7740	3	8564
1629	2536	3992	2243	8771	0	9901
1630	2506	4201	2521	9237	1317	9315
1631	2459	3697	2132	8288	274	8524
1632	2704	4412	2411	9527	8	9384
1633	2378	3936	2078	8392	0	9997
1634	2937	4980	2982	10899	1	9855
1635	2742	4966	2943	10651	0	10034
	20694	33495	19327	73505	1603	75774

Anno Dom.	97 Parishes	16 Parishes	Out-Parishes	Buried in all	Besides of the *Plague*	Christned
1636	2825	6924	3210	12959	10400	9522
1637	2288	4265	2128	8681	3082	9160
1638	3584	5926	3751	13261	363	10311
1639	2592	4344	2612	9548	314	10150
1640	2919	5156	3246	11321	1450	10850
1641	3248	5092	3427	11767	1375	10670
1642	3176	5245	3578	11999	1274	10370
1643	3395	5552	3269	12216	996	9410
	23987	42544	25721	91752	19244	80443
1644	2593	4274	2574	9441	1492	8104
1645	2524	4639	2445	9608	1871	7966
1646	2746	4872	2797	10415	2365	7163
1647	2672	4749	3041	10462	3597	7332
1648	2480	4288	2515	9283	611	6544
1649	2865	4714	2920	10499	67	5825
1650	2301	4138	2310	8749	15	5612
1651	2845	5002	2597	10804	23	6071
	21026	36676	21199	78896	10041	54617
1652	3293	5719	3546	12553	16	6128
1653	2527	4635	2919	10081	6	6155
1654	3323	6063	3845	13231	16	6620
1655	2761	5148	3439	11348	9	7004
1656	3327	6573	4015	13915	6	7050
1657	3014	5646	3770	12430	4	6685
1658	3613	6923	4443	14979	14	6170
1659	3431	6988	4301	14720	36	5690
	25288	47695	30278	103261	107	51502
1660	3098	5644	3926	12668	13	6971
1661	3804	7309	5532	16645	20	8855

The Table following contains the N
nings in the seven *Parishes* here under-m
unto the year 1659 *inclusivè*; all which ti
were joyntly mentioned: the two last ye
ted in the yearly *Bills*. This Table con
the *Total* of all the *Burials* being conta
which Number being added to the *Tota*
Burials, and *Christnings*, makes the *Total*
Bill.

Note, *where there follows a second N*
those, who died that year of the Pla

An.Do.	*Westmin.* Bur.	Ch.	*Islington,* B.	Ch.	*Lambeth,* B.	Ch.	*Stepney.* B.	Ch.	N B
1636	1107	556	99	56	213	137	1895	881	
	442		30		45		909		
1637	963	496	94	72	173	137	952	838	
	301		17		18		153		
1638	1021	563	116	49	221	140	1209	908	
	126				8		11		
1639	546	543	88	53	195	132	970	956	
	4		2				2		
1640	754	665	94	54	187	142	1106	983	
	62		3		6		117		
1641	697	625	92	76	168	137	1250	1037	
	40		5		9		70		
1642	671	630	98	71	149	124	1270	1158	
	37		4		12		20		
1643	666	592	105	69	177	114	1167	1013	
	25		3		45		83		
1644	570	429	61	55	115	105	1187	933	
	35		8		8		269		
1645	621	444	55	63	146	114	1171	873	
	62		6		3		150		
1646	691	503	84	61	137	108	1230	960	
	76		8		5		97		
1647	739	464	108	56	161	94	1126	926	

the Number of *Burials*, and *Christ-*
der-mentioned, from the year 1636
which time the *Burials*, and *Christnings*
last years the *Christnings* were omit-
e consists of seventeen Columns,
g contained in the sixteen Columns:
e *Total* in the precedent Table of
Total of every yearly, or general

ond Number under any year, it denotes
the Plague.

ney.		Newing.		Hackney, Rear.		Tot. 7. Par.		Tot. 7. Par.
Ch.	B.	Ch.	B.	Ch.	B.	Ch.	B.	Ch.
5 881	584	155	68	77	90	62	4056	1924
9	242		14		20		1702	
2 838	183	172	68	70	74	51	2507	1836
3	16		6		10		521	
9 908	255	146	101	69	74	78	2997	1953
1							145	
0 956	187	159	84	53	81	52	2151	1948
2					1		9	
6 983	189	194	76	54	53	77	2459	2159
7					1		189	
0 1037	170	137	82	73	69	64	2508	2149
0			4				128	
0 1158	160	145	78	58	63	76	2489	2262
0	17		5		4		99	
7 1013	240	147	65	36	42	67	2471	2038
3	86				2		244	
7 933	123	101	54	45	70	82	2189	1750
9	44		3		17		384	
1 873	183	119	58	60	50	60	2284	1753
0	18		7		1		256	
0 960	156	130	76	63	47	43	2421	1868
7	14		9		2		203	
6 926	129	65	88	45	42	44	2393	1688

	40		5		9		76	
1642	671	630	98	71	149	124	1270	115
	37		4		12		20	
1643	666	592	105	69	177	114	1167	101
	25		3		45		83	
1644	570	429	61	55	115	105	1187	93
	35		8		8		269	
1645	621	444	55	63	146	114	1171	87
	62		6		3		150	
1646	691	503	84	61	137	108	1230	90
	76		8		5		97	
1647	739	464	108	56	161	94	1126	92
	114		12		25		155	
1648	561	384	68	46	87	57	837	76
	41		4				31	
1649	558	333	90	44	131	55	838	62
			1				3	
1650	470	413	78	54	88	50	748	51
1651	580	345	107	51	127	49	961	69
1652	649	432	99	36	179	50	1212	65
					1			
1653	567	394	69	46	120	54	1064	62
1654	657	401	96	65	166	76	1252	80
1655	676	414	95	86	134	128	1199	85
1656	761	498	139	89	176	152	1255	96
1657	705	473	112	67	231	137	1213	87
1658	890	440	113	36	220	32	1486	89
1659	822	415	116	56	193	103	1392	69
1660	783		108		183		1151	
1661	983		102		330		1561	

Place th

70				4				128	
70	1158	160	145	78	58	63	76	2489	2262
20		17		5		4		99	
67	1013	240	147	65	36	42	67	2471	2038
83		86				2		244	
87	933	123	101	54	45	70	82	2189	1750
69		44		3		17		384	
71	873	183	119	58	60	50	60	2284	1753
50		18		7		1		256	
230	960	156	130	76	63	47	43	2421	1868
97		14		9		2		203	
126	926	129	65	88	45	42	44	2393	1688
55		28		16		4		434	
837	767			57	42	45	59	1635	1305
31				6				82	
838	625			90	49			1807	1106
3								4	
748	572	55	65	61	48	50	62	1550	1264
961	634	172	59	60	30	84	45	2091	1213
212	657	198	85	72	33	74	37	2483	1330
								1	
064	620	195	76	71	48	69	21	2155	1250
252	803	236	106	88	31	75	46	2570	1526
199	859	172	120	68	37	62	57	2406	1701
255	963	248	127	67	46	66	45	2701	1920
213	876	204	123	96	42	51	31	2612	1749
486	892	181	99	91	30	48	16	2958	1645
392	695	138	86	8 3	50	84	13	2828	1418
151		114		6 5		33		2437	
561		340		102		87		3505	

Place this Table after fol. 76.

An. Dom.	Buried		Christned	
	Males	Females	Males	Females.
1629	4668	4103	5218	4683
1630	5660	4894	4858	4457
1631	4549	4013	4422	4102
1632	4932	4603	4994	4590
1633	4369	4023	5158	4839
1634	5676	5224	5035	4820
1635	5548	5103	5106	4928
1636	12377	10982	4917	4605
	47779	43945	39708	37024
1637	6392	5371	4703	4457
1638	7168	6456	5359	4952
1639	5351	4511	5368	4784
1640	6761	6010	5518	5332
Total	73451	65293	60664	56549
1641	6872	6270	5470	5200
1642	7049	6224	5460	4910
1643	6842	6360	4793	4617
1644	5659	5274	4107	3997
1645	6014	5465	4047	3919
1646	6683	6097	3768	3395
1647	7313	6746	3796	3536
1648	5145	4749	3363	3181
	51577	47185	34804	32754
1649	5454	5112	3079	2746
1650	4548	4216	2890	2722
1651	5680	5147	3231	2840
1652	6543	6026	3220	2908
1653	5416	4671	3196	2959
1654	6972	6275	3441	3179
1655	6027	5330	3655	3349
1656	7365	6556	3668	3382
	44005	41333	26380	24085
1657	6578	5856	3396	3289
1658	7936	7057	3157	3013
1659	7451	7305	9209	2781
1660	7960	7158	3724	3247
	29925	27376	13186	12330
Total	198952	181187	135034	126758

The Table by Decads *of years for the Country-Parish.*

Decads of years	Married	*Christened.* Males	Fem.	Both	*Buried.* Males	Fem.	Both
5 {69 78	190	312	302	614	214	221	435
5 {79 88	185	328	309	637	287	302	589
5 {89 98	175	342	274	616	337	284	621
{599 608	181	366	377	743	249	219	468
6 {09 18	197	417	358	775	338	386	724
5 {19 28	168	368	373	741	305	306	611
5 {29 38	153	418	413	831	317	319	636
5 {39 48	137	351	357	708	375	383	758
5 {49 58	182	354	320	674	218	220	438
	1568	3256	3083	6339	2640	2640	5280

The Table of the Country-Pariſh.

Years	Communicants	Weddings	Chriſtned M.	F.	Both	Buried M.	F.	Both
1569		14	38	30	68	23	21	44
1570		19	29	32	61	21	25	46
1571		18	28	26	54	23	27	50
1572		23	32	32	54	20	14	34
1573		21	34	36	70	24	13	37
1574		16	21	29	50	28	38	66
1575		24	37	29	66	15	19	34
1576		22	33	37	70	16	18	34
1577		13	29	26	55	19	21	40
1578		20	31	35	66	25	25	50
		190	312	302	614	214	221	435
1579		15	35	36	71	27	27	54
80		21	43	31	74	38	41	79
81		29	29	33	62	34	24	58
82		22	28	29	57	18	21	39
83		22	32	27	59	35	52	87
84		15	46	44	90	22	19	41
85		15	26	21	47	15	27	42
86		18	22	23	45	24	37	61
87		13	34	31	65	43	36	79
1588		15	33	34	67	31	18	49
		185	328	309	637	287	302	589

The

The Table of Males and Females

Years	Communicants	Weddings	Christned M.	Christned F.	Christned Both	Buried M.	Buried F.	Buried Both
1589		20	31	27	58	28	16	44
90		16	40	29	69	36	21	57
91		12	37	28	65	35	30	65
92		14	40	25	65	28	19	47
93		20	32	20	52	33	32	65
94		24	34	37	71	16	22	38
95		16	32	28	60	33	28	61
96		9	36	26	62	42	29	71
97		23	23	25	48	53	64	117
98		21	37	29	66	33	23	66
		175	342	274	616	337	284	631
1599		19	45	31	76	21	22	43
600		16	26	34	60	20	26	46
601		16	39	32	71	18	12	30
602		14	31	32	63	29	18	47
603		12	31	38	69	32	39	71
604		21	42	35	77	26	27	53
605		19	47	34	81	21	12	33
606		19	29	41	70	28	23	51
607		27	36	47	83	33	19	52
608		17	40	53	93	21	21	42
		181	366	377	743	249	219	468

The

The Table of Males and Females.

Years	Weddings	Christned M.	Christned F.	Christned Both.	Buryed M.	Buryed F.	Buryed Both
1609	23	30	31	61	24	41	65
10	19	46	30	76	33	40	73
11	25	40	41	81	41	32	73
12	20	55	32	87	53	63	116
13	24	41	33	74	47	41	88
14	25	50	35	85	27	36	63
15	22	35	48	83	28	36	64
16	14	38	36	74	27	41	68
17	17	45	31	76	35	28	63
1618	8	37	41	78	23	28	51
	197	417	358	775	338	386	724
1619	21	37	43	80	26	28	54
20	20	34	51	85	18	30	48
21	21	31	37	68	28	36	64
22	23	45	38	83	20	26	46
23	14	40	36	76	56	31	87
24	19	30	33	63	29	35	64
25	7	37	41	78	36	20	56
26	9	30	35	65	21	29	50
27	18	45	23	68	24	29	53
1628	16	39	36	75	47	42	89
	168	368	373	741	305	306	611

The

Years	Weddings	Chriſtned M.	Chriſtned F.	Chriſtned Both.	Buried M.	Buried F.	Buried Both
1629	22	53	38	91	46	28	74
30	8	58	45	103	26	27	53
31	20	42	29	71	26	33	59
32	16	43	50	93	15	21	36
33	12	38	65	103	18	11	29
34	23	30	45	75	18	26	44
35	11	39	32	71	18	17	35
36	15	50	37	87	42	48	90
37	13	35	36	71	25	35	60
1638	13	30	36	66	83	73	156
	153	418	413	831	317	319	636
1639	18	24	31	55	48	66	114
40	11	44	41	85	35	39	74
41	21	34	29	63	34	36	70
42	21	48	39	87	32	29	61
43	8	30	42	72	59	28	87
44	16	33	26	59	65	72	137
45	10	43	41	84	28	29	57
46	11	32	35	67	24	32	56
47	12	28	46	74	25	21	46
48	9	35	27	62	25	31	56
	137	351	357	708	375	383	758
1649	9	22	37	59	46	34	80
50	9	55	31	86	25	27	52
51	7	25	27	52	11	21	32
52	14	34	28	62	20	25	45
53	9	47	24	71	21	14	35
54	15	34	37	71	14	25	39
55	38	35	34	69	28	19	47
56	28	40	30	70	18	15	33
57	37	23	43	66	22	25	47
58	16	39	29	68	13	15	28
	182	354	320	674	218	220	438

Advertiſements for the better underſtanding of the ſeveral Tables : videlicet,

Concerning the Table of Caſualties *conſiſting of thirty Columns.*

THe firſt Column contains all the *Caſualties* happening within the 22 ſingle years mentioned in this Bill.

The 14 next Columns contain two of the laſt *ſeptenaries* of years, which being the lateſt are firſt ſet down.

The 8 next Columns repreſent the 8 firſt years, wherein the *Caſualties* were taken notice off.

Memorandum, *That the* 10 *years between* 1636 *and* 1647 *are omitted as containing nothing Extraordinary, and as not conſiſtent with the Incapacity of a Sheet.*

The 5 next Columns are the 8 years from 1629 to 1636 brought into 2 Quaternions, and the 12 of the 14 laſt years brought into three more; that Compariſon might be made between each 4 years taken together, as well as each ſingle year apart.

The

The next Column contains 3 years together, taken at 10 years diſtance from each other; that the diſtant years, as well as conſequent, might be compared with the whole 20, each of the 5 Quaternions, and each of the 22 ſingle years.

The laſt Column contains the total of the 15 Quaternions, or 25 years.

The Number 229250 is the total of all the Burials in the ſaid 20 years, as 34190 is of the Burials in the ſaid 3 diſtant years. Where note that the $\frac{1}{3}$ of the latter total is 11396 and the $\frac{1}{10}$ of the former is 11462; differing but 66 from each other in ſo great a ſum, *videlicet* ſcarce $\frac{1}{200}$ part.

The Table of Burials, and Chriſtnings, conſiſting of 7 Columns.

IT is to be noted, that in all the ſeveral Columns of the *Burials* thoſe dying of the *Plague* are left out, being reckoned all together in the ſixth Column. Whereas in the original Bills the *Plague*, and all other diſeaſes are reckoned together, with mention how many of the reſpective totals are of the *Plague*.

Secondly, From the year 1642 forwards the accompt of the *Chriſtnings* is not to be truſted, the neglects of the ſame beginning about that year: for in 1642 there are ſet down 10370, and about the ſame Number ſeveral years before, after which time the ſaid *Chriſtnings* decreaſed to between 5000 and 6000 by omiſſion of the greater part.

Thirdly, The ſeveral Numbers are caſt up into *Octo-*

naries

narties, that Compariſon may be made of them as as well as of ſingle years.

The Table of Males, and Females, containing 5 Columns.

Firſt, The Numbers are caſt up for 12 years: *videlicet* from 1629, when the diſtinction between *Males* and *Females* firſt began, untill 1640 *incluſivè* when the exactneſs in that Accompt ceaſed.

Secondly, From 1640 to 1660 the Numbers are caſt up into another total, which ſeems as good for comparing the Number of *Males* with *Females*, the neglect being in both Sexes alike, and proportionable.

The Tables concerning the *Country-Pariſh*, the former of *Decads* beginning at 1569, and continuing untill 1658, and the latter being for ſingle years, being for the ſame time, are ſo plain, that they require no further Explanation then the bare reading the Chapter relating to them, *&c.*

FINIS.

Errata.

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